

# ACADEMIC CATALOG

2017-2018



**YOUNGSTOWN  
STATE UNIVERSITY**

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# UNDERGRADUATE CATALOG

## YOUNGSTOWN STATE UNIVERSITY UNDERGRADUATE CATALOG 2017-2018

One University Plaza

Youngstown, Ohio 44555

## General Information

### University Mission

Youngstown State University—an urban research university—emphasizes a creative, integrated approach to education, scholarship, and service. The University places students at its center; leads in the discovery, dissemination, and application of knowledge; advances civic, scientific, and technological development; and fosters collaboration to enrich the region and the world.

### The University

- Creates diverse educational experiences that develop ethical, intellectually curious students who are invested in their communities;
- Provides access to a broad range of undergraduate programs;
- Offers graduate programs in selected areas of excellence, including those that meet the needs of the region;
- Supports economic development through applied learning and research;
- Integrates teaching and learning, scholarship, and civic engagement;
- Fosters understanding of diversity, sustainability, and global perspectives; and
- Advances the intellectual and cultural life of the city, region, and world.

### Youngstown State University Core Values

We—the faculty, staff, administrators, and students of Youngstown State University—hold the following values essential to achieving the University's mission:

#### Centrality of Students

We are a student-centered institution committed to the education, development, well-being, and success of students of all ages and from all walks in life. In concert with our mission to help students grow intellectually, we strive to foster their personal, social, emotional, and career growth, as well as their capacities for lifelong learning, civic responsibility, and leadership.

#### Excellence and Innovation

We value excellence and innovation inside the classroom and out. Thus, we strive:

- to integrate curricular and extracurricular activities to offer outstanding academic programs;
- to foster intellectual inquiry, exploration, and discovery to transcend traditional boundaries;
- to apply and perfect knowledge to encourage creativity;
- to provide effective tools, technologies, and facilities for learning; and
- to excel in research and scholarly activity, including the "scholarship of teaching and learning"—an area of research that explores how individuals teach and learn.

#### Integrity/Human Dignity

As a campus community, we expect all conduct to be rooted in integrity, mutual respect, and civility. We value ethical behavior in scholarly and other endeavors; believe in the dignity and worth of all people; strive to foster an

appreciation of, and respect for, differences among the human race; and celebrate the diversity that enriches the University and the world.

### Collegiality and Public Engagement

As scholar-citizens of many extended and interconnected communities, we pledge to work collegially and cooperatively to enrich the cultural environment; establish productive partnerships; provide responsible leadership; address community and workforce needs; foster sustainability; and bring about the greater good of the collective whole—be it the University, the city of Youngstown, the state of Ohio, the region, or beyond.

### YSU 2020 The Four Cornerstones

*YSU 2020: The Strategic Plan of Youngstown State University 2011–2020*, adopted by the YSU Board of Trustees in December 2010, is based on four critical guideposts, or "cornerstones":

#### Accountability and Sustainability

Accountability and sustainability entail aligning the University's resources and investments to meet broad strategic goals and maintain institutional vitality.

#### Student Success

Student success is defined as "academic achievement, satisfaction, and productive post-college performance."

#### Urban Research University Transition

Youngstown State University contributes to the development and application of knowledge for the betterment of students and, thus, the communities in which they live and work. The University strives to improve the quality of life in the region and is the primary link to the global community. As an urban research university, YSU is guided by three core principles:

- Faculty research and scholarship are integrated into teaching and learning to improve graduate and undergraduate student experiences;
- YSU answers important questions and solves real problems by sharing information, expertise, and resources with the community;
- YSU invests in research, academic, and other programs that enrich the intellectual, cultural, and economic life of the community.

#### Regional Engagement

Regional engagement refers to activities that enhance the quality of life, well-being, and economic development of communities in and around Youngstown and the surrounding region. YSU has a positive impact on the region through active mutual engagement, not merely by existence.

The YSU 2020 document and related web pages are available at YSU 2020 Strategic Plan. (<http://www.yzu.edu/ysu-2020>)

### Historical Sketch

Youngstown State University traces its beginnings to a commercial law course offered by the Young Men's Christian Association (YMCA) in 1908. The YMCA had offered high school level and vocational courses since 1888, but it wanted to meet the college-level needs of area residents in a society undergoing rapid industrialization and urbanization. The "Y" offered courses on law, business, and engineering, and in 1910, it even instituted a School of Law that granted no degree but prepared students to take the bar exam. In 1916, the YMCA incorporated all of its educational work under the Youngstown Association School.

By the early 1920s, the Ohio Board of Education granted the School of Law the power to confer the Bachelor of Science in Law degree, and in 1924 the School of Commerce and Finance the right to confer the bachelor's degree in commercial science. The YMCA also offered courses to prepare teachers for certification, a program that evolved by 1927 into a separate school named Youngstown College and recognized by the State Department of Education. That same year, the school also established the College of Liberal Arts.

Throughout the 1920s, the schools of law and commercial science were called the Youngstown Institute of Technology, which began a move from downtown to the present location with the purchase of several mansions owned by the Wicks and other prominent Youngstown families.

In 1931, the YMCA constructed its first classroom building, the present-day Jones Hall, and appointed Howard Jones as the educational director. By the mid-1930s, the Board of Directors decided to incorporate with the official name of Youngstown College separate from the other "Y" educational efforts; they appointed Howard Jones as the first president, a position he held until 1966.

In 1944, the trustees of the Young Men's Christian Association transferred control of the institution to the members of the Corporation of Youngstown College, and in 1955 the corporation was rechartered as The Youngstown University. The University joined the Ohio system of higher education in September 1967 as Youngstown State University.

Dana's Musical Institute, founded in nearby Warren in 1869, became Dana's Musical Institute of Youngstown College in 1941. In 1946, the Engineering Department, organized several years before, became the William Rayen School of Engineering; two years later, the Business Administration Department became the School of Business Administration; and in 1981 the school name was changed to the Warren P. Williamson, Jr. School of Business Administration. In 1960, the Education Department became the School of Education.

The Graduate School and College of Applied Science and Technology were created in 1968, and, in 1974, the College of Creative Arts and Communication was established.

In 1972, Youngstown State University, with the University of Akron and Kent State University formed a consortium to sponsor the Northeastern Universities College of Medicine, which enrolled its first students in 1975.

In 1991 the engineering technology departments separated from CAST and joined the new College of Engineering and Technology; the remaining departments formed the new College of Health and Human Services.

In 2007, the Rayen College of Engineering and Technology incorporated the science and mathematics departments from the College of Arts and Sciences. This reorganization linked science, technology, engineering, and mathematics in one academic college, and the humanities and social sciences in another college.

Youngstown State University now consists of the College of Graduate Studies and six undergraduate academic colleges:

- Beeghly College of Education
- Bitonte College of Health and Human Services
- College of Creative Arts and Communication
- College of Liberal Arts and Social Sciences
- College of Science, Technology, Engineering, and Mathematics
- Williamson College of Business Administration

Degrees offered range from the associate, bachelor's, and master's to a Doctorate in Educational Leadership, a Doctor of Physical Therapy, and a Doctor of Philosophy in Materials Science and Engineering.

## Accreditation

Youngstown State University is accredited by the Higher Learning Commission (HLC) (telephone: (312) 263-0456 or (800) 621-7440). The HLC is an independent corporation that was founded in 1895 as one of six regional institutional accreditors in the United States. Please write to [info@hlcommission.org](mailto:info@hlcommission.org) ([hlcommission.org](http://hlcommission.org)) if you have any questions.

For more information about YSU's accreditation, visit the Statement of Accreditation Status (<https://www.hlcommission.org/component/registry/?Action=ShowBasic&Itemid=&instid=1613>).

Academic programs within the individual colleges may be further accredited by their respective professional bodies. Those accreditations are listed in each college section.

## Assessment

The Youngstown State University Office of Assessment coordinates and supports continuous improvement activities across campus, including academic, co-curricular, and general education program student learning assessment. We support the accreditation standards of the Higher Learning Commission by assisting faculty and staff in systematic, comprehensive assessment and improvement of student learning. The Youngstown State University Mission and 2020 Strategic Plan guide our work in building a positive culture of assessment, using data responsibly to improve institutional practice, and using assessment to support and promote student success. A systematic feedback loop also enables both academic and co-curricular units to share information about student learning with students, faculty, staff, and appropriate organizations. All information is shared in aggregate form only, and confidentiality of individual students is safeguarded. If assessment information is shared beyond internal efforts of program improvement or accreditation, departments and the Office of Assessment abide by the Institutional Review Board guidelines at YSU and FERPA regulations, as appropriate.

For more information, visit the **Office of Assessment**.

## Division of Multicultural Affairs

### Division of Multicultural Affairs

The Division of Multicultural Affairs reports to the President and is charged with the day-to-day implementation of diversity, inclusion, and multicultural affairs.

The major responsibilities of Multicultural Affairs are to educate the University and the community regarding diversity, multicultural affairs, and related issues as well as supporting and encouraging diversity initiatives. The division also conducts educational outreach programs and training in the areas of diversity and multicultural affairs.

We believe that a vibrant and diverse institutional climate is essential to providing effective delivery of services and instruction to diverse groups and in preparing them for a diverse and global society. YSU embraces a broad definition of diversity that is comprised of, but is not limited to, differences in cultural, social, economic, racial and ethnic origin, gender, religion, rural and urban communities, geographic origins, academic backgrounds, age, sexual orientation, gender identity and/or expression, ability or disability, physical appearance, personality, learning style, personal experiences, multilingual abilities, and veteran status. This diversity creates a richness that enhances the campus climate.

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## Chief Diversity Officer

The Chief Diversity Officer works in partnership with the President and senior leadership in advancing diversity and multicultural competence that will foster inclusion and cultivate diverse multicultural interactions among administrators, faculty, staff, students, and the region.

## Mission of Division of Multicultural Affairs

- Create a Culture of Community.
- Cultivate an environment that is inclusive.

- Educate the university community on the importance of diversity in our teaching and learning, curriculum, assessment, climate, environment, advising and student success, and campus-community connection.
- Collaborate with University departments and community businesses, organizations, agencies, etc. as a resource in developing diversity programs and activities that promote a better understanding of the diverse nature of the region.
- Administrates the daily operations of the Multicultural Center.

## Multicultural Center

The Multicultural Center accommodates the staff of the combined offices: Division of Multicultural Affairs (DMA) and International Programs Office (IPO); and has two Interfaith Meditation Rooms that are available Monday through Friday, 8 am - 5 pm.

The Multicultural Center speaks to the university's commitment to value and serve all people through inclusive practices within the campus community and beyond.

## Mission of the Multicultural Center

- Provide an inclusive environment for all (students, staff/faculty and administrators and visitors).
- Encourage and facilitate meaningful interaction through conversation, meetings, projects, coffee hour, etc.
- Increase cultural awareness between diverse American and International students, faculty, and staff.

For more information, visit **Division of Multicultural Affairs**.

## Office of Equal Opportunity and Policy Development

### Office of Equal Opportunity and Policy Development/Title IX Compliance

The Office of Equal Opportunity and Policy Development (EOPD) is responsible for the review and development of University policies and for University compliance with state and federal equal opportunity laws and regulations, including Title VII of the Civil Rights Act of 1964, and Title IX of the Education Amendments of 1972. This responsibility includes:

- Development and implementation of the University's Affirmative Action Plan.
- Development of University Policies.
- Provision of training and educational programs in the areas of affirmative action, equal employment, discrimination, and harassment.
- Investigation of complaints of discrimination or harassment, including student complaints of sexual harassment, discrimination and violence, whether filed by, or against faculty, staff, students, or third parties.

#### TITLE IX COORDINATOR

The Director of EOPD also serves as the University's Title IX Coordinator and oversees the investigation and disposition of student complaints of sexual harassment, including complaints involving dating violence, domestic violence, stalking and sexual assault.

Cynthia A. Kravitz, Esq.  
 Director of Equal Opportunity & Policy Development/Title IX Coordinator  
 One University Plaza, Tod Hall-Room 301  
 Youngstown, Ohio 44555  
 Telephone (330) 941-2340  
 Fax (330) 941-2394  
 cakravitz@ysu.edu or TitleIX@ysu.edu

For more information please see the University's Equal Opportunity and Policy Development (<http://cms.ysu.edu/administrative-offices/equal-opportunity-and-policy-compliance/equal-opportunity-and-policy>) website and the Title IX (<http://cms.ysu.edu/title-ix/title-ix-home>) website.

#### Disability Services/Inquiries:

*Title II/Section 504 Coordinator for Employees and others:*  
 Marcie Patton  
 Manager of Compensation and Employee Benefits  
 (330) 941-1322  
 mlpatton@ysu.edu

*Title II/Section 504 Coordinator for Students:*  
 Gina McGranahan  
 Assistant Director of Disability Services  
 (330) 941-2090  
 glmcgranahan@ysu.edu

**Youngstown State University Non-Discrimination Statement:** Youngstown State University does not discriminate on the basis of race, color, national origin, sex, sexual orientation, gender identity and/or gender expression, disability, age, religion or veteran/military state in its programs and activities.

## Academic Organization

The Academic Division is organized in the following units:

- Beeghly College of Education (<http://www.ysu.edu/academics/beeghly-college-education>)
- Bitonte College of Health and Human Services (<http://www.ysu.edu/academics/bitonte-college-health-and-human-services>)
- College of Creative Arts and Communication (<http://www.ysu.edu/academics/college-creative-arts-and-communication>)
- College of Liberal Arts and Social Sciences (<http://www.ysu.edu/academics/college-liberal-arts-social-sciences>)
- College of Science, Technology, Engineering, and Mathematics (<http://www.ysu.edu/academics/science-technology-engineering-mathematics>)
- Williamson College of Business Administration (<http://www.ysu.edu/academics/williamson-college-business-administration>)
- College of Graduate Studies (<http://www.ysu.edu/academics/college-graduate-studies>)
- Honors College (<http://www.ysu.edu/academics/honors-college>)

Each academic college, along with its major programs and curriculum, is described in its section of this catalog.

YSU also offers the YSU-BaccMed (<http://www.ysu.edu/academics/science-technology-engineering-mathematics/ysu-baccmed>) program leading to medical studies at Northeast Ohio Medical University (NEOMED) for up to 35 selected students with an emphasis on primary care.

The post-baccalaureate programs of the College of Graduate Studies (<http://cms.ysu.edu/college-graduate-studies/college-graduate-studies>) are set forth in the Graduate Catalog (p. 605).

Virtually all departments offer courses during daytime and evening hours, and several majors may be obtained by students who are able to attend only during the evening. Several degree programs are also available online. To accommodate working students, classes are offered on a flexible schedule – from classes that meet five days a week to classes that meet only one day a week. The main academic year runs from late August into May in two 16-week semesters. During the summer term, courses are offered both for a 12-week session and for three sessions of six weeks each. Courses are also offered in shorter time frames.

## Degrees Granted

Youngstown State University grants the following baccalaureate and associate degrees:

- Bachelor of Arts (BA)
- Bachelor of Engineering (BE)
- Bachelor of Fine Arts (BFA)
- Bachelor of General Studies (BGS)
- Bachelor of Music (BM)
- Bachelor of Science (BS)
- Bachelor of Science in Applied Science (BS in AS)
- Bachelor of Science in Business Administration (BS in BA)
- Bachelor of Science in Dental Hygiene (BSDH)
- Bachelor of Science in Education (BS in Ed)
- Bachelor of Science in Nursing (BSN)
- Bachelor of Science in Respiratory Care (BSRC)
- Bachelor of Social Work (BSW)
- Associate of Arts (AA)
- Associate of Applied Science (AAS)
- Associate of Technical Study (ATS)

All bachelor's and associate degrees may be taken as honors degrees. A combined BS/MD degree is offered in conjunction with the Northeast Ohio Medical University.

## Admission

Undergraduate admission is handled by the Office of Admissions, located in Sweeney Welcome Center at the corner of University Plaza and Bryson Street. You may contact the admissions office in any of the following ways:

**Phone:** Toll free (877) GO-TO-YSU | (877) 468-6978 | (330) 941-2000

**TDD:** (330) 941-1564

**Fax:** (330) 941-3674

**E-Mail:** [enroll@ysu.edu](mailto:enroll@ysu.edu)

**YSU Web Site**

**Admissions Web Site**

The Office of Admissions is open on weekdays and selected Saturdays. Please call the numbers above or visit the website for times. Campus tours are available twice daily Monday through Friday and on selected Saturdays. Tours can be scheduled by calling the Admissions Office (<https://cms.ysu.edu/administrative-offices/admissions/undergraduate-campus-visits>) or by scheduling on-line (<https://cms.ysu.edu/administrative-offices/admissions/undergraduate-campus-visits>).

Tours are best scheduled a week or more in advance, but you are welcome to visit the YSU campus and stop in the office any time without an appointment. If you schedule ahead, we can arrange free parking; otherwise, visitors can park in the F-1 (University Plaza) lot across from the Sweeney Welcome Center for a nominal fee that covers parking for a full day.

Admission to the University does not guarantee admission to every program. Some programs within the University have separate admission standards that must be met before a student may enroll in that particular program. Developmental courses are available to assist in satisfying scholastic deficiencies. Those students who lack high school subjects required by the various colleges within the University may be admitted with the understanding that these courses will be completed as soon as possible and no later than the end of the college sophomore year.

Academically qualified 7-12th grade students may apply and enroll in courses prior to high school graduation through the College Credit Plus (CCP) program. For more information, visit the CCP website (<http://cms.ysu.edu/administrative-offices/metro-credit/college-credit-plus>) or click on Special

Academic Programs (<http://catalog.ysu.edu/undergraduate/general-information/special-academic-programs>) and scroll down to Early Enrollment Opportunities.

## Admission With Conditions

Students may be admitted to YSU with conditions under certain circumstances. Please see Conditional Admission for more information.

## State Residency Status

Place of residence for admission and tuition purposes will be determined at the time of admission or readmission by the Office of Admissions on the basis of the residency rules stated in the Ohio Revised Code (<http://codes.ohio.gov/oac/3333-1-10>) and from the information supplied on the "Application for Admission" or the "Undergraduate Application for Readmission" form.

If at any time you have questions about your appropriate classification, you should immediately bring it to the attention of the Office of Admissions for review. Students requesting Ohio residency are required to complete a State of Residency Verification form, available by request from the Office of Admissions, and provide additional supporting documentation. A change to resident status cannot be made retroactive if supporting documentation is received after the first day of the requested semester.

## Residency Status Appeal

After the Office of Admissions makes its determination, a decision will be sent in writing to the student. If a student wishes to appeal the decision, she or he can request an appearance before the Residence Classification Board. Such appearances occur within two weeks of the request, if possible. The Residence Classification Board's appellate decision is final.

Please see Ohio Residency (p. 51) of this *Undergraduate Catalog* for the complete text of the Ohio Department of Higher Education residency criteria.

## Application Fee

A non-refundable application fee of \$45 is required unless the applicant is a former YSU student, or those who have served or are currently serving in the Armed Forces of the United States.

## High School Preparation

Students desiring to pursue a baccalaureate degree should have completed the following college preparatory units:

### Baccalaureate Degree College Preparatory Units<sup>1</sup>

English	4
Mathematics	4
Science	3
Social Studies	3
Foreign Language <sup>1</sup>	2
Arts	1
<b>Total Units</b>	<b>16</b>

<sup>1</sup> Two units in one language

It is recommended that coursework include:

- English composition
- Algebra 1, Algebra 2, and Geometry
- Laboratory science
- United States history and government

In addition, the Bachelor of Engineering (BE) degree program suggests a unit of mechanical drawing, a half-unit of trigonometry, and in the sciences, one unit of chemistry and one unit of physics specifically. Students interested

in programs such as computer information systems, physical sciences, and mathematics should also take a fourth year of mathematics. For the Bachelor of Music (BM) degree program, the applicants are expected to have proficiency in one or more branches of applied music. See the Dana School of Music (p. 237) section.

Students wishing to pursue an associate degree should have completed the following college preparatory units:

### Associate Degree College Preparatory Units

English	4
Mathematics	2
Science	2
Social Studies	2
Other Subjects	6
<b>Total Units</b>	<b>16</b>

Students admitted to the University may have their high school records evaluated by the college in which they are enrolled. Specific coursework, in addition to what is listed above, may be required in order to be accepted into a specific program or major. Since such coursework may vary depending on the college and degree requirements, students should check with advisors as to the academic expectations that need to be met.

## Admission with Non-Traditional Credit

You may be admitted to Youngstown State University with credits from non-traditional educational sources.

### Prior Learning Assessment Credit

Prior Learning Assessment (PLA) is an option that enables students to demonstrate what they have learned outside the classroom and translate that learning into college credit. Prior Learning Assessment validates learning acquired through corporate training programs, extensive volunteer activity, military service, workplace experience, civic engagement, individual readings and studies, training sponsored by professional organizations, and training sponsored by governmental agencies. Credit is awarded for college-level learning (knowledge, skills, and competencies) that students have obtained as a result of their prior learning experiences.

Students must demonstrate their mastery of the knowledge in a subject area in order to earn college credit. Prior learning can be verified by one or more of the following:

- performance on standardized tests or department challenge exams
- creation and evaluation of a portfolio
- demonstration of military service learning

Some certifications awarded by accrediting organizations are given automatic academic credit at YSU once proper paperwork is completed and proof of certification is presented. Please visit the Prior Learning Assessment (<http://cms.yzu.edu/prior-learning-assessment/prior-learning-assessment>) webpage and look at crosswalks. If you have a certificate that is awarded immediate credit, please contact Dr. Tammy A. King, Co-Chair and Acting PLA Coordinator, at [taking@ysu.edu](mailto:taking@ysu.edu) for assistance with the required paperwork for obtaining the credit.

For more information regarding PLA credit and guidelines, please see the Prior Learning Assessment (<http://cms.yzu.edu/prior-learning-assessment/prior-learning-assessment>) website.

## Veterans

The US Military is considered one of the finest training institutes in the world. Every veteran or currently serving military student is entitled to a review of his or her military training to determine if college credit can be awarded.

Courses taken through the United States Armed Forces Institute (USAFI) or the Defense Activity for Non-Traditional Education Support (DANTES) as well as certain formal service school courses may be considered for transfer toward the student's degree program. USAFI or DANTES courses must be evidenced by an official transcript, and service school courses through the (JST) Joint Service Transcript (Army, Navy, Marines, Coast Guard) or the (CCAF) Community College of the Air Force Transcript.

An individual who has served or is serving in the United States Armed Forces and has completed Basic Military Training will receive credit for that training. Credit may also be granted for "military job skill training" obtained while a member of the U.S. Armed Forces. A copy of the applicant's DD Form 214 and JST or CCAF must be supplied to the Office of Veterans Affairs in order to validate and award such credit. Be advised that credit awarded for various military education may not relate, or be applicable to the student's chosen field of study and as a result may not fulfill specific degree requirements.

Questions should be addressed to the Office of Veterans Affairs, (330) 941-2503. See the Office of Veterans Affairs (<http://cms.yzu.edu/administrative-offices/veterans-affairs/office-veteran-affairs>) website for more information.

### Credit By Examination

Credit by examination is available to students who satisfactorily complete the appropriate subject examination.

- Advanced Placement Program (APP) - available *only* through student's high school.
- College Level Examination Program (CLEP)
- Departmental Examinations - Call the specific department for a list of available exams and registration information.

### Online Credit

The University will accept online work taken in connection with a regionally accredited institution under the same circumstances as provided in the section titled "Transfer Credit."

### Transient Applicants

A student seeking a degree at another institution may ordinarily take one semester of course work at YSU as a transient student. The student must apply for admission to the University and provide a statement from the registrar from the student's current institution that she or he is in good standing. Only students in good academic standing and eligible to return to their institution will be permitted to enroll as transients. Students who wish to remain as a transient student for a second consecutive semester should contact Admissions. A transient student who wishes to transfer to Youngstown State University must:

- complete an Undergraduate Application Form
- provide an official high school transcript
- submit official transcripts from all other colleges attended

### Former Student Applicants

All students who have interrupted their attendance at Youngstown State University for three consecutive semesters must reactivate their record. Students who have attended any accredited college or university since last attending YSU must contact the Office of Admissions, submit an application and provide all official documentation described under, "Credentials for Transfer Students."

## Non-Matriculated Admission

The option of non-matriculated admission provides an opportunity for adults out of high school two or more years to enroll in undergraduate courses without completion of the regular admission process. High school or previous collegiate transcripts are not required until the non-matriculated student completes 18 credit hours or decides to seek admission to a degree program. Coursework taken in the 18 semester hours as a non-matriculated student can be applied to a degree program at Youngstown State University. Non-matriculated students are able to register only after current students have registered.

Applications for non-matriculated admission can be obtained through the Office of Admissions.

## Suspended Students

A former student who was academically suspended must apply for reinstatement to the dean of the college he or she wishes to attend. **Reinstatement procedures may vary with the college.** For details, consult either the Office of Records or the appropriate dean's office.

See Grade Requirements (p. 38) for rules regarding suspension and reinstatement.

## Application Deadlines

We encourage all students to apply at least two months prior to the application closing dates listed below. Review of applications received after these dates cannot be guaranteed.

### Fall Semester 2017

#### Freshman

Application Deadline: <sup>1</sup>	Aug. 1
Credentials Deadline:	Aug. 1

#### Former Transfer and Transfer

Application Deadline:	Aug. 1
Credentials Deadline:	Aug. 15

#### Former Transient and Transient

Application Deadline:	Aug. 1
Credentials Deadline:	Aug. 15

**Beginning Dates for Each Semester** Wednesday, Aug. 23, 2017

### Spring Semester 2018

#### Freshman

Application Deadline:	Dec. 1
Credentials Deadline:	Dec. 1

#### Former Transfer and Transfer

Application Deadline:	Dec. 1
Credentials Deadline:	Dec. 15

#### Former Transient and Transient

Application Deadline:	Dec. 1
Credential Deadline:	Dec. 15

**Beginning Dates for Each Semester** Monday, Jan. 8, 2018

### Summer Semester 2018

#### Freshman

Application Deadline:	Apr. 15
Credentials Deadline:	Apr. 15

#### Former Transfer and Transfer

Application Deadline Summer I:	Apr. 15
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Credentials Deadline Summer I:	May 15
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Application Deadline: Summer II & III:	May 15
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Credentials Deadline: Summer II & III	June 1
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#### Former Transient and Transient

Application Deadline Summer I:	Apr. 15
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Credentials Deadline Summer I:	May 15
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Application Deadline: Summer II & III:	May 15
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Credentials Deadline: Summer II & III:	June 1
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#### Beginning Dates for Each Semester

Full-Term, First 6-Week Term, First 8-Week Term:	Monday, May 14, 2018
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Middle 6-Week Term, Middle 8-Week Term:	Monday, June 11, 2018
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Second 6-Week Term:	Monday, June 25, 2018
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<sup>1</sup> If you are accepted for admission by **February 15**, you will be eligible for the Early Advisement and Registration Program (EARLY). If you do not participate in the EARLY program, please keep in mind that your orientation and registration date is based on the date of your acceptance to the University.

## International Undergraduate Admission

Applicants who are not U.S. citizens or legal permanent residents should apply for undergraduate admission through the International Programs Office (IPO). For more information about international undergraduate admission, please visit the IPO website (<https://cms.yosu.edu/administrative-offices/international-programs-office/future-students>). Those wishing to enroll in the English Language Institute (ELI) also apply directly to the IPO; visit the ELI section (<http://www.yosu.edu/english-language-institute>) for more information.

## International Student Applicants

Youngstown State University welcomes applications from qualified students around the world. The University's International Programs Office (IPO) provides a wide range of support services for international students, described in detail in other sections of this *Undergraduate Catalog*.

Applicants who are not U.S. citizens or legal permanent residents apply for admission through the IPO.

For issuance of an immigration document, F-1 and J-1 students must demonstrate the financial ability to pay for at least **one year of academic and living expenses**.

## General Admission Statement

The admission information contained in this section reflects standard admissions requirements. Meeting these requirements does not guarantee admission to the university or to specific programs. Persons who are not citizens of the U.S. but hold permanent resident, refugee, or political asylum status should apply based on their state of residence.

## Academic Credentials

Academic credentials include high school and college transcripts, test scores, GED scores, and/or any other records required for admission or granting credit. **Only properly certified and signed credentials issued to YSU and received directly from the issuing institution will be accepted. All must be in a sealed envelope(s) from the issuing institution. Provisional admission may be offered in certain cases to applicants who submit certified copies of credentials.** Students admitted provisionally will be required to produce all original documents by the end of their first term of enrollment.

## International Application Priority Deadlines

Semester	Freshman	Transfer
Fall	June 1	July 1
Spring	November 1	November 15
Summer	March 1	April 1

## International Freshman and Overseas Transfer Students

Applicants from overseas must submit the following information well in advance of the desired date of admission. Admission is possible during all terms provided the deadline for application is met. Students must attend the mandatory new international student orientation.

- A completed application form, a \$45 non-refundable application fee and a list of all educational experiences including studies undertaken in the U.S. Applicants seeking F-1 or J-1 (student) non-immigrant status must submit certification of sufficient financial resources available for education and living expenses while attending the University.
- Official credentials and transcripts from all secondary schools, colleges, and universities that the student has attended, including subjects studied, grades, and a key to the grading system. If credentials are not in English, official translations must be provided. Transfer credits may be granted for courses taken at U.S. and overseas accredited institutions only if an official syllabus or course description is provided; evaluation of transfer credit will be made prior to the start of classes. Evidence of academic and disciplinary good standing at the last prior institution with a minimum grade point average of 2.00 (on a 4.00 scale). Some YSU programs may have higher requirements.
- *Transfer applicants* must submit official transcripts and syllabi for all college-level work as described above.
- English Language Proficiency - Applicants whose education is from an English-medium secondary or post-secondary institution in certain countries are exempt from the standardized English proficiency testing requirement. International students who graduate from an English medium secondary school in the United States are required to submit either the ACT or SAT in lieu of TOEFL, IELTS, or PTE Academic.

All other applicants for whom English is a second language must present evidence of proficiency in the English language in one of the following ways [Effective August 2018 intake]:

Official Test Score on one of the following:

- Test of English as a Foreign Language (TOEFL) directly from the Educational Testing Service (ETS) with a minimum score of:
  - 65 or higher on the Internet Based TOEFL test (IBT)
- a minimum score of 6.0 composite (with at least 5.0 on each subscale) on the International English Language Testing System (IELTS)
- a minimum score of 950 on the SAT II English Language Proficiency Test
- American College Testing (ACT) [17]
- PTE Academic (Pearson Test of English) [48]
- Successful completion of 24 semester hours of college-level coursework from an accredited English-medium college in the United States or another country where English is an official language.

## The English Language Institute (ELI)

The English Language Institute (ELI) at YSU was established through the International Programs Office (IPO) to provide intensive study of English to speakers of other languages. It offers non pre-college credit courses designed to teach English to students who already have some knowledge of English. In addition, the ELI provides an orientation to college life and culture in the U.S. Courses are available to international students, permanent residents and U.S. citizens whose first language is not English.

English as a second language courses cannot be used as credit toward a degree. Applicants need to understand in advance that deficiencies in English may increase the amount of time and money required for completing a regular program of study.

Proficiency testing is also available by special arrangement. YSU's English Language Institute (ELI) administers the paper-based TOEFL. These scores are valid at YSU only. YSU's Comprehensive Testing Center also offers the Internet Based TOEFL (IBT).

## Types of Admission for International Students

### Regular Admission

Regular admission will be granted if the student's records meet YSU's academic requirements for admission, satisfy the high school curriculum requirements, and show that the applicant has adequate preparation for study in the proposed major. Regular admission is unconditional admission.

### Conditional Admission

Students meeting all the above admissions requirements except the specified level of English proficiency may be admitted conditionally. This admission is conditional upon successful completion of English language study at IPO's English Language Institute (ELI).

### Admission with Transfer Credit

All transfer credit is evaluated by the International Programs Office. Credits from accredited or officially recognized institutions in other countries will be evaluated upon presentation of official transcripts, official translations and complete course descriptions and/or syllabi. Students holding undergraduate degrees equivalent to the bachelor's degree may be admitted to the University for post-baccalaureate undergraduate study upon recommendation of the Dean of the proposed college, IPO's Associate Provost, and the Chair of the relevant department.

### Standardized Academic Testing

Scores on the SAT or ACT are required in lieu of English language proficiency, for the admission of international students from Canada, those who are attending U.S. high schools or international schools that follow a U.S. high school curriculum, and those who intend to participate in the intercollegiate athletic program and need to comply with NCAA eligibility requirements.

### Graduate Admission

Application for admission to the University for graduate study is made directly to Graduate Admissions. (For details, consult the *Graduate Catalog* or the College of Graduate Studies (<http://cms.ysu.edu/college-graduate-studies/college-graduate-studies>) website.)

## New Freshman Applicants

### Application Requirements

Applicants must have graduated from high school or have successfully completed the General Education Development (GED) test to be considered for admission. Freshman applicants applying for admission to Youngstown State University must submit a high school transcript and American College Test (ACT) or Scholastic Assessment Test (SAT) scores. Students are excused from this test score requirement only if they have been graduated from High School for two or more years.

Applicants must have a high school grade point average of 2.00 or higher on a 4.00 point scale, have an ACT composite score of 17 or higher, or a combined SAT score of 910 or higher from the evidence-based writing and reading test, and the math test to be admitted unconditionally.

For more information, visit the Ohio Department of Higher Education Career-Technical Credit Transfer (CT) (<https://www.ohiohighered.org/transfer/ct2/how-to-access-ct2-credit>)<sup>2</sup> Verification of Course/Program Completion Form webpage.

**Home-schooled applicants** must meet the following criteria:

1. Applicants are required to submit results from the ACT or SAT. Those applicants who have been out of school for two or more years are exempt from this requirement.
2. An official transcript showing documentation of coursework completed of grades 9-12 and indicating date of completion of studies or graduation must be sent to Admissions.
3. A copy of academic assessment (i.e. Iowa Basic Skills Test, California Achievement Test, etc.) reports submitted to the appropriate superintendent of school pursuant to Section 3301-34-04 of the Ohio Administrative Code must be received by Admissions.
4. A copy of the Superintendent's Exemption Notice showing the student is excused to receive home schooling.
5. Home-schooled students from states other than Ohio must submit the appropriate documentation required for allowing home-schooling in their state, along with above criteria #1, and #2.

## Athletics Participation

Students planning to participate in intercollegiate athletics in their first year at YSU must take either the SAT or the ACT prior to enrolling in college. Please call the Office of Intercollegiate Athletics at (330) 941-2282 for more information about eligibility for athletics participation.

## English Requirement

YSU requires proof that you have sufficient knowledge of the English language to follow your program of study. If your native language is not English, please see International Student Applicants (<https://cms.yzu.edu/administrative-offices/international-programs-office/english-proficiency-requirements>).

## Articulated Credit

In the presence of a formal agreement between Youngstown State University and a particular career center or high school, students may earn college credit for specified courses they successfully completed in high school. Youngstown State University has many program-specific articulation agreements with career and technical centers and high schools in the following counties: Columbiana, Holmes, Mahoning, Medina, Portage, Stark, Summit, Trumbull, Tuscarawas, and Wayne. Students in those approved articulated programs of study receive instructions from their career and technical center or high school about how to have earned credits posted to their YSU transcripts after they enroll at YSU and meet college readiness criteria. Students who complete career-technical programs of study may also receive specified articulated college credit. For information about College Tech Prep (<http://www.yzu.edu/associate-degree-programs>) at YSU, visit their website.

## High School Transcripts

Applicants must arrange to have their high schools send to the Office of Admissions a record of all work completed. Partial transcripts will be given consideration for early decisions. If the applicant's record clearly indicates satisfactory completion, notification of conditional acceptance will be made before high school graduation. Final high school transcripts showing a graduation date must be received prior to the first day of the semester in which the student is enrolled.

## Conditional Admission

Students with a high school grade point average below 2.00 (out of 4.00) or a composite ACT below 17 (or SAT critical-reading and math composite below 820), or transfer students with a transfer GPA below 2.00 (out of 4.00), are

not eligible for regular admission, but may be admitted with conditions after review by the Admissions Committee.

If a student has not taken the ACT or SAT, or does not have a high school GPA, the student is not eligible for regular admission, but may be admitted with conditions until a placement test is taken. Following the placement test, if a student tests into RSS 1510B Basic College Success Skills or ENGL 1539 Fundamentals of College Writing, the student will remain conditionally admitted. If a student tests out of both RSS 1510B Basic College Success Skills and ENGL 1539 Fundamentals of College Writing, the conditionally admitted status is removed.

Conditionally admitted students must meet the following requirements:

1. Conditionally admitted students shall not be admitted during the summer session. Students who place into conditional admission status based on placement testing in the summer term will have their start date deferred to the fall semester.
2. Conditionally admitted students are required to attend freshman orientation (SOAR); failure to do so will defer admittance to a subsequent semester. Transfer students may meet this requirement by attending a regular or transfer SOAR or by completing the online orientation module for transfer students.
3. Conditionally admitted students shall be classified as having an *undetermined* major (CLASS, BCOE, BCHHS), a *pre-major* (STEM, CCAC) or an *undeclared Business major* (WCBA) designation, a status that shall remain until the student satisfies all requirements to exit the conditional admission classification.
4. During their first semester, conditionally admitted students must fulfill a contract with the Center for Student Progress, which includes meeting weekly with their coordinator and two times during the term with their college academic advisor.
5. Conditionally admitted students cannot register for more than 14 semester hours of courses in a single semester.
6. Students placing into RSS 1510A Advanced College Success Skills, RSS 1510B Basic College Success Skills, ENGL 1539 Fundamentals of College Writing, or ENGL 1540 Introduction to College Writing must take these courses in their first semester. Students may not withdraw from these courses unless they make a complete withdrawal from the university.
7. Conditionally admitted students are restricted to an approved list of courses (see course listing below).
8. All conditionally admitted students are to be advised by their college's professional advisors and not by faculty or departmental advisors.
9. Conditionally admitted students must receive approval of their course schedule by a college academic advisor and may not make further changes without approval of the advisor.
10. Conditionally admitted status is not to be applied to students in the BCHHS's *Emergency Medical Services Certificate* and *Police Academy* programs. Students accepted in the *Police Academy* are not required to take the placement test.
11. If a Youngstown Early College (YEC) student has earned a GPA of 2.00 or above and has passed all required developmental courses, the student's ACT or SAT test score will not be considered in establishing the student's conditional admission status.
12. Students entering Distance Learning Programs will not be considered for conditional admission status.
13. Failure to fulfill the first semester guidelines and achieve good academic standing (a GPA of 2.00 or above) shall result in the conditionally admitted student being dismissed from the university. The student may not be admitted to any other YSU college until the dismissal period has expired.

The restrictions imposed on coursework and semester hours will be removed when the student has done the following:

1. Successfully completed all developmental courses into which the student has tested:



COURSE	TITLE	S.H.
RSS 1510A	Advanced College Success Skills	3
RSS 1510B	Basic College Success Skills	3
ENGL 1539 or ENGL 1540	Fundamentals of College Writing Introduction to College Writing	4

- Successfully completed six semester hours of non-developmental courses.
- Achieved good academic standing (a GPA of 2.00 or above). See the *Undergraduate Catalog* for more information on academic standing.
- Fulfilled the conditional admission contract.

Students fulfilling these requirements may file a petition with a college academic advisor to have the restrictions and their conditionally admitted status removed.

### Approved Courses for Conditionally Admitted Students

COURSE	TITLE	S.H.
AFST 2600	Introduction to Africana Studies <sup>1</sup>	3
AFST 2601	Introduction to Africana Studies <sup>2</sup>	3
COUN 1587	Introduction to Health and Wellness in Contemporary Society <sup>1</sup>	3
COUN 1589	Success in Career and Life Planning	3
CSIS 1500	Computer Literacy	3
ECON 1503	Rich and Poor: Diversity and Disparity in the United States Workplace <sup>1</sup>	3
ENGL 1539	Fundamentals of College Writing <sup>2</sup>	4
ENGL 1540	Introduction to College Writing <sup>2</sup>	3
ENGL 1550	Writing <sup>1, 5</sup>	3
ENGL 1551	Writing <sup>2, 5</sup>	3
ENST 1500	Introduction to Environmental Science <sup>1</sup>	3
ENST 1500L	Introduction to Environmental Science Lab <sup>1</sup>	1
GEOL 1500	Environmental Geology <sup>1</sup>	4
GEOL 1500L	Environmental Geology Laboratory <sup>1</sup>	0
HAHS 1510	Investigations into Social Classes in America	3
HIST 1501	American Dreams: Introduction to United States History <sup>1</sup>	3
KSS 1500	Physical Activity Core Concepts	1
HPES 1500 and any two of the following activity courses counts as 3 s.h. for the SPS Domain of the GER:		3
KSS 1502	Volleyball	
KSS 1507	Volleyball 2	
KSS 1510	Archery	
KSS 1511	Badminton	
KSS 1512	Bowling	
KSS 1513	Bowling 2	
KSS 1514	Fencing 1	
KSS 1515	Fencing 2	
KSS 1519	Racquetball	
KSS 1520	Golf 1	
KSS 1521	Golf 2	
KSS 1522	Tennis 1	
KSS 1523	Tennis 2	
KSS 1524	Physical Fitness and Exercise Program	
KSS 1526	Marksmanship	
KSS 1528	Advanced Physical Fitness and Exercise Programs	

KSS 1529	Recreational Games	
KSS 1530	Learn to Swim	
KSS 1531	Aquatics 2	
KSS 1537	Aquatic Exercise	
KSS 1544	Step Aerobics	
KSS 1545	Fold and Square Dance	
KSS 1548	Aerobic Dance	
KSS 1554	Fitness Walking	
KSS 1555	Jogging	
KSS 1556	Racquetball 2	
KSS 1557	Weight Training	
KSS 1564	Bicycling	
KSS 1565	Self Defense	
KSS 1566	Judo	
KSS 1568	Taekwondo/Karate	
KSS 2697	Camping	
MATH 1501	Elementary Algebraic Models <sup>2</sup>	5
MATH 1507	Intermediate Algebra <sup>2</sup>	3
MATH 1513	Algebra and Transcendental Function <sup>3</sup>	5
MATH 2623	Quantitative Reasoning <sup>5</sup>	3
MSCI 1510	Introduction to ROTC	1
MSCI 1520	Introduction to Leadership	1
MSCI 1530L	Basic Course Leadership Laboratories	0
MUHL 2621	Music Literature and Appreciation <sup>1</sup>	3
MUHL 2616	Survey of Jazz <sup>1</sup>	3
PHLT 1531	Fundamentals of Public Health <sup>1</sup>	3
PHLT 1568	Healthy Lifestyles <sup>1</sup>	3
POL 1550	Introduction to Political Science <sup>1</sup>	3
RSS 1510A	Advanced College Success Skills <sup>2</sup>	3
RSS 1510B	Basic College Success Skills <sup>2</sup>	3
RSS 1510C	STEM Advanced College Success Skills <sup>2</sup>	4
SOC 1500	Introduction to Sociology <sup>1</sup>	3
THTR 1560	Understanding Theater <sup>1</sup>	3
THTR 1590	History of Motion Pictures <sup>1</sup>	3
TCOM 1595	Survey of American Mass Communications <sup>1, 4</sup>	3

Any college-based first year orientation course

A limited number of additional college-based courses are available with consultation with, and the expressed approval of, the student's college advisor.

<sup>1</sup> General Education course

<sup>2</sup> Developmental course

<sup>3</sup> Transfer students only

<sup>4</sup> Second semester or later only

<sup>5</sup> Only if tested or placed into

## Career-Technical Credit Transfer (CT) <sup>2</sup> / CTAG

Secondary or adult students who successfully complete specified technical programs are eligible to have technical credit transfer to public colleges and universities. This transfer of credit is described in Career-Technical Assurance Guides (CTAG). Students are guaranteed the transfer of applicable credits among Ohio's public colleges and universities and equitable treatment in the

application of credits to admissions and degree requirements. (CT)<sup>2</sup> helps more high school and adult career-technical students to go to college and enter with college credit; technical credit saves students money and time; and Ohio business and industry will benefit from more employees with higher education and advanced skills.

The language in section 3333.162 (<http://regents.ohio.gov/careertechtransfer/archives/documents/HB66Language.pdf>) of the Ohio Revised Code requires the Ohio Department of Higher Education and the Ohio Department of Education to develop policies and procedures ensuring that students at an adult career-technical education institution or secondary career-technical education institution can transfer agreed upon technical courses completed there (that adhere to recognized industry standards) to any public institution of higher education "without unnecessary duplication or institutional barriers."

To access credit, students will need to request a Verification Form be sent by the career-institution from which they attended/graduated, to the college or university that the student wishes to attend. For more information on how to access (CT)<sup>2</sup> credit visit the Ohio Department of Higher Education Career-Technical Credit Transfer (CT) (<https://www.ohiohighered.org/transfer/ct2/how-to-access-ct2-credit>)<sup>2</sup> Verification of Course/Program Completion Form webpage.

## Transfer Applicants

An applicant who has graduated from high school and was enrolled in another college or university for at least one course during the fall semester following high school graduation is classified as a transfer applicant. This classification includes post-graduate applicants from other institutions seeking additional undergraduate coursework.

The Ohio Department of Higher Education in 1990, following a directive of the 119th Ohio General Assembly, developed the Ohio Articulation and Transfer Policy to facilitate students' ability to transfer credits from one Ohio public college or university to another in order to avoid duplication of course requirements. A subsequent policy review and recommendations produced by the Articulation and Transfer Advisory Council in 2004, together with mandates from the 125th Ohio General Assembly in the form of Amended Substitute House Bill 95, have prompted improvements of the original policy. While all state-assisted colleges and universities are required to follow the Ohio Articulation and Transfer Policy, independent colleges and universities in Ohio may or may not participate in the transfer policy. Therefore, students interested in transferring to independent institutions are encouraged to check with the college or university of their choice regarding transfer agreements. In support of improved articulation and transfer processes, the Ohio Department of Higher Education (ODHE) has established a transfer clearinghouse to receive, annotate, and convey transcripts among state-assisted colleges and universities. This system is designed to provide standardized information and help colleges and universities reduce undesirable variability in the transfer credit evaluation process.

## ODHE Transfer Module

The Ohio Department of Higher Education's Transfer and Articulation Policy established the transfer module, which is a subset or entire set of a college or university's general education curriculum in AA, AS, and baccalaureate degree programs. Students in applied associate degree programs may complete some individual transfer module courses within their degree program or continue beyond the degree program to complete the entire transfer module. The transfer module contains 54-60 quarter hours or 36-40 semester hours of course credit in:

- English composition (minimum 5 quarter hours or 3 semester hours)
- Mathematics, statistics, and formal/symbolic logic (minimum of 3 quarter hours or 3 semester hours)
- Arts/humanities (minimum 9 quarter hours or 6 semester hours)

- Social and behavioral sciences (minimum of 9 quarter hours or 6 semester hours)
- Natural Science (minimum 9 quarter hours or 6 semester hours)
- Oral communication and interdisciplinary areas may be included as additional options to satisfy OTM requirements
- Additional elective hours from among these areas make up the total hours for a completed transfer module

Courses for the transfer module should be 100- and 200-level general education courses commonly completed in the first two years of a student's course of study. Each state-assisted university, technical, and community college is required to establish and maintain an approved transfer module.

Transfer module course(s) or the full module completed at one college or university will automatically meet the requirements of individual transfer module course(s) or the full transfer module at another college or university once the student is admitted. Students may be required, however, to meet additional general education requirements at the institution to which they transfer. For example, a student who completes the transfer module at Institution S (sending institution) and then transfers to Institution R (receiving institution) is said to have completed the transfer module portion of Institution R's general education program. Institution R, however, may have general education courses that go beyond its transfer module. State policy initially required that all courses in the Transfer Module be completed to receive its benefit in transfer. However, subsequent policy revisions have extended this benefit to the completion of individual transfer module courses on a course-by-course basis.

## ODHE Conditions for Transfer Admission

1. Ohio residents with associate degrees from state-assisted institutions and a completed, approved transfer module shall be admitted to any state institution of higher education in Ohio, provided their cumulative grade point average is at least 2.0 for all previous college-level courses. Further, these students shall have admission priority over out-of-state associate degree graduates and transfer students.
2. When students have earned associate degrees but have not completed a transfer module, they will be eligible for preferential consideration for admission as transfer students if they have grade point averages of at least a 2.0 for all previous college-level courses.
3. In order to encourage completion of the baccalaureate degree, students who are not enrolled in an AA or AS degree program but have earned 60 semester or 90 quarter hours or more of credit toward a baccalaureate degree with a grade point average of at least a 2.0 for all previous college-level courses will be eligible for preferential consideration for admission as transfer students.
4. Students who have not earned an AA or AS degree or who have not earned 60 semester hours or 90 quarter hours of credit with a grade point average of at least a 2.0 for all previous college-level courses are eligible for admission as transfer students on a competitive basis.
5. Incoming transfer students admitted to a college or university shall compete for admission to selective programs, majors, and units on an equal basis with students native to the receiving institution.

Admission to a given institution, however, does not guarantee that a transfer student will be automatically admitted to all majors, minors, or fields of concentration at the institution. Once admitted, transfer students shall be subject to the same regulations governing applicability of catalog requirements as native students. Furthermore, transfer students shall be accorded the same class standing and other privileges as native students on the basis of the number of credits earned. All residency requirements must be completed at the receiving institution.

## Acceptance of Transfer Credit

To recognize courses appropriately and provide equity in the treatment of incoming transfer students and students native to the receiving institution, transfer credit will be accepted for all successfully completed college-level

courses completed from regionally accredited colleges and universities. Students who successfully complete AA or AS degrees with a 2.0 or better overall grade point average would also receive credit for all college-level courses they have passed. (See Ohio Articulation and Transfer Policy, Definition of Passing Grade, Appendix D on the ODHE (<https://www.ohiohighered.org/transfer/policy>) website.) While this reflects the baseline policy requirement, individual institutions may set equitable institutional policies that are more accepting. Pass/fail courses, credit by examination courses, experiential learning courses, and other nontraditional credit courses that meet these conditions will also be accepted and posted to the student record.

See information for Transfer Students (<http://www.yсу.edu/admissions/apply-to-yсу/transfer-students>) for related documents.

## Transfer Assurance Guides

Transfer Assurance Guides (TAGs) comprise transfer module courses and additional courses required for an academic major. A TAG is an advising tool to assist Ohio university and community and technical college students planning specific majors to make course selections that will ensure comparable, compatible, and equivalent learning experiences across the state's higher-education system. A number of area-specific TAG pathways in the arts, humanities, business, communication, education, health, mathematics, science, engineering, engineering technologies, and the social sciences have been developed by faculty teams. TAGs empower students to make informed course selection decisions and plans for their future transfer. Advisors at the institution to which a student wishes to transfer should also be consulted during the transfer process. Students may elect to complete the full TAG or any subset of courses from the TAG. Because of specific major requirements, early identification of a student's intended major is encouraged. TAG courses count toward the major without adding to the overall total of credits in the particular major.

Students should also check with their department about which courses have received approval from ODHE as part of the Transfer Assurance Guides program. Only those courses that have received such approval can be guaranteed transfer credit as part of the major. Students may also check with the ODHE TAG (<https://www.ohiohighered.org/transfer/tag>) website.

## Transferring to YSU

### Transfer Credit

Transfer credit is given for all coursework taken at a regionally accredited institution, provided that the student has a cumulative grade point average equivalent to at least a 2.0 (on a 4.0 system) at that institution and the work is creditable towards a degree at that institution. Earned credits transferring into YSU will apply to one of three areas including general education, major coursework or elective credit. YSU accepts a "D" grade on the same basis as the rules governing native students. For example, a "D" grade might not satisfy a prerequisite for which a higher grade is needed. Courses from nonregionally-accredited institutions may be accepted on a case-by-case basis with the approval of the chair of the department and the dean of the college in which the course would be housed at YSU.

Conditions for transfer admission to the University are in line with ODHE rules and regulations (see above). Per ODHE policy, the University recognizes the associate degree as preliminary to the baccalaureate and admits advanced-standing students possessing the associate degree from a regionally accredited institution. Transfer credit is granted for all work successfully completed from the associate degree. Admission to the University does not guarantee that a transfer student will be automatically admitted to all majors, minors, or fields of concentration. Some programs within the University have separate admission standards that must be met before a student may enroll in that particular program. Please consult the appropriate college or department for information on restricted program admissions. Once admitted, transfer students shall be subject to the same regulations governing applicability of

catalog requirements, class standing, and other privileges as all other native students.

Transfer applicants who are in good standing at the last institution attended and who have a cumulative grade point average of 2.0 or higher (on a 4.0 system) for all previous college-level courses are admitted in good standing. Transfer applicants with a cumulative grade point average of less than 2.0 or who are on probation may be considered on a case by case basis. Applicants suspended or dismissed from their most recent institutions are not eligible for admission until at least one semester (excluding summer) has passed following the term in which the suspension occurred. Transfer students with multiple suspensions or a dismissal may not be eligible for admission. See the reinstatement policy for YSU students (<http://www.yсу.edu/academic-advising/policies-procedures>) in the *Undergraduate Catalog*. Consistent with undergraduate academic policy, failure to maintain a grade point average of 2.0 or higher (on a 4.0 system) during the probationary semester will result in academic suspension.

The university is continuing the process of examining all courses from surrounding collegiate institutions. The Office of Degree Audit along with the department chairs and the coordinator of General Education work with the Office of Admissions to identify courses that equate or courses that could count toward a major or general education credit. The appropriate school or college and/or department and/or coordinator of general education in accordance with policies governing the fulfillment of degree requirements will determine distribution of any accepted course work.

### Credentials for Transfer Students

Official transcripts may be sent directly from the issuing institution to the YSU Office of Admissions or can be delivered in person in a sealed and stamped envelope. The Ohio Department of Higher Education has established a transfer clearinghouse to receive, annotate, and convey transcripts among state- assisted colleges and universities. Official transcripts may also be sent electronically through a secured provider (e.g. Parchment, eScrip-Safe, National Student Clearinghouse, etc.)

### Pre-baccalaureate

All undergraduate transfer applicants will need to provide the Youngstown State University Office of Admissions with an official copy of their high school transcript and must provide an official copy of all undergraduate transcripts.

### Baccalaureate

Postgraduate applicants are required to submit all undergraduate transcripts from regionally accredited colleges and universities attended. High school transcripts are not required unless specifically requested by YSU.

### Prior Learning Assessment Credit

Prior Learning Assessment (PLA) is an option that enables students to demonstrate what they have learned outside the classroom and translate that learning into college credit. Prior Learning Assessment validates learning acquired through corporate training programs, extensive volunteer activity, military service, workplace experience, civic engagement, individual readings and studies, training sponsored by professional organizations, and training sponsored by governmental agencies. Credit is awarded for college-level learning (knowledge, skills, and competencies) that students have obtained as a result of their prior learning experiences.

Students must demonstrate their mastery of the knowledge in a subject area in order to earn college credit. Prior learning can be verified by:

- Performance on standardized tests or department challenge exams
- Creation and evaluation of a portfolio
- Demonstration of military service learning

For more information regarding PLA credit and guidelines, please see the Prior Learning Assessment (<http://cms.yсу.edu/prior-learning-assessment/prior-learning-assessment>) website.

## General Education and the Transfer Module

1. Per the articulation and transfer module guidelines developed by the Ohio Department of Higher Education, any student transferring to YSU with a completed transfer module from another Ohio public institution of higher learning will receive credit for all hours (36-40 semester hours; 54-60 quarter hours) contained within the module. Furthermore, the transfer module portion of YSU's General Education Requirements will be judged to be completed.
2. Students transferring into YSU with the OTM completed at another institution will have all general education courses completed with the exception of 2 courses under Social and Personal Awareness (6 semester hours) and the capstone course (3 semester hours). Students may find a list of approved capstone courses on the General Education website (p. 43).
3. For those students who have not completed the transfer module at another school, ODHE has guaranteed that any approved transfer module course taken at one institution must receive general education credit at the receiving institution. YSU has also determined that courses beyond the OTM list may satisfy general education requirements. The Office of Degree Audit will process equates between YSU courses and the transferred courses. The General Education Office will determine which courses being transferred fit within the YSU general education model. The student will then be advised as to how many courses in each domain must be taken to satisfy the general education requirements at this university. Each student must complete a capstone course at Youngstown State University.

## Transfer from a Regionally Accredited Institution- Articulation Agreements

YSU also has a number of articulation agreements with colleges in Ohio and western Pennsylvania. Through these agreements a maximum number of credits from the associate-degree-granting institution will be applied toward a bachelor's degree program at YSU. Associate-degree holders meeting that criterion will, in most cases, be admitted with junior standing at Youngstown State and entitled to all the rights and privileges of native junior students, including eligibility for financial aid and priority in registration. Please refer to the Degree Audit (<http://cms.yzu.edu/administrative-offices/degree-audit/degree-audit>) website for more information and for a current list of articulation agreements.

The University also has articulation agreements with many career and technical centers to award college credit for various courses. For a complete list of these agreements, refer to the Degree Audit website under **Agreements with Other Schools**.

Articulation agreements are pending with several other institutions in the region. Applicants who have not completed an associate program are considered on the same basis as other transfer applicants.

## Transferring From YSU

In order to facilitate transfer with maximum applicability of transfer credit, prospective transfer students should plan a course of study that will meet the requirements of a degree program at the receiving institution. Students should use the Transfer Module (see below), Transfer Assurance Guides (<https://www.ohiohighered.org/transfer/tag>), and the Transferology (<https://www.transferology.com>) system for guidance in planning the transfer process. Specifically, students should identify early in their collegiate studies an institution and major to which they desire to transfer. Furthermore, students should determine if there are language requirements or any special course requirements that can be met during the freshman or sophomore year. This will enable students to plan and pursue a course of study that will articulate with the receiving institution's major. Students are encouraged to seek further information regarding transfer from both their advisor and the college or university to which they plan to transfer.

## YSU Transfer Module

Based on ODHE guidelines, students wishing to transfer to another state college or university can complete the general education transfer module by taking the following:

- English 1550 Writing I, English 1551 Writing II (6 semester hours)
- Mathematics, statistics, and logic (3 semester hours)
- Oral Communications (3 semester hours)
- Natural Science (must include one laboratory science, minimum of 7 semester hours)
- Arts and Humanities (minimum of 6 semester hours)
- Social Science (minimum of 6 semester hours)

It is recommended that students take a minimum of six of the hours from Natural Science, Arts and Humanities, or Social Science from courses that are cross-listed as Social and Personal Awareness. In doing so, a student can still complete YSU's General Education Requirements in a timely manner should that student choose not to transfer.

No course may count unless it is on the 1500 or 2600 level. The student must take the minimum credits in each category and at least 36 credits overall to complete the transfer module. However, each course approved as part of a university's Transfer Module is guaranteed credit at another state institution as a general education course.

Students planning to transfer from YSU should refer to the *Undergraduate Catalog* (General Education Courses by Knowledge Domain) for a list of general education courses approved as part of the transfer module. Only those courses with an asterisk will receive general education credit. This information will also be available on the General Education (p. 43) website, which is linked to the YSU homepage.

## Advanced Placement (AP)

The state of Ohio, working through the University System of Ohio, has initiated policies to facilitate the ease of transition from high school to college as well as between and among Ohio's public colleges and universities.

Beginning in the fall term 2009:

1. Students obtaining an Advanced Placement (AP) exam score of 3 or above will be awarded the aligned course(s) and credits for the AP exam area(s) successfully completed.
2. General education courses and credits received will be applied towards graduation and will satisfy a general education requirement if the course(s) to which the AP area is equivalent fulfill a requirement.
3. If an equivalent course is not available for the AP exam area completed, elective or area credit will be awarded in the appropriate academic discipline and will be applied towards graduation where such elective credit options exist within the academic major.
4. Additional courses or credits may be available when a score of 4 or 5 is obtained. Award of credit for higher score values varies depending on the institution and academic discipline.
5. In academic disciplines containing highly dependent sequences (mathematics, sciences, etc.), students are strongly advised to confer with the college/ university advising staff to ensure they have the appropriate foundation to be successful in advanced coursework within the sequence.

## Appeals

A student who disagrees with the award of transfer credit by the receiving institution has the right to appeal the decision and should contact the Office of Degree Audit to begin the process. The institution will make the student aware of the entire appeal process at the time of contact. You can also visit the Appeal (<http://www.yzu.edu/admissions/apply-to-yzu/transfer-students>) website for an explanation of the process.

# Tuition, Fees, and Charges

See Student Fees and Charges below for current figures.

## Payment of Tuition and Fees

Student accounts are billed each semester. Tuition statements are sent out electronically, and an e-mail is sent each time a bill is issued. Current account information – including charges, payments, and refund amounts – is available online at [ysu.edu/viewmybill](http://ysu.edu/viewmybill). Tuition statements may also be printed from this site.

Students are expected to have their student accounts in a paid status prior to attending the first class meeting for a term. In order to have a student account in a "paid status," students must be either paid in full for the term or officially signed up and paid the first payment on the approved payment plan. Late and/or partial payments are subject to late payment fee assessment.

**You are strongly encouraged to pay your bill online at [ysu.edu/viewmybill](http://ysu.edu/viewmybill).**

**You may also make payment:**

\* in person at the payment windows on the second floor of Meshel Hall.

**Cashier Hours are Monday through Friday 10:00 a.m. - 2:00 p.m.**

\*via the payment drop box also located on the second floor of Meshel Hall (check only, no cash) or

\*by mail to: Youngstown State University, Attention Office of University Bursar, One University Plaza, Youngstown, OH 44555 (check only, please do not mail cash). Please make checks payable to Youngstown State University.

You may pay by online by echeck (no additional charge) or with Visa, MasterCard, or Discover. Effective July 1, 2012, there is a 2.75% convenience fee minimum of \$3.00 for payments made by credit card.

If you deliver a check in person, mail it, or place it in the payment drop box, you authorize us to convert that check to an electronic Automated Clearing House (ACH) transaction. That check will then appear on your monthly bank statement as an Electronic Debit. If you do not wish to have your paper check converted to an ACH, you must present it in person or select an alternative payment method (for instance, credit card).

A payment plan is also available that will allow you to spread your payments out over a longer period. Payment plan enrollment must be processed online and requires an initial payment at the time of enrollment. There is a fee for enrollment in the payment plan, and late payments are subject to late payment fee assessment.

Students are solely responsible for timely payment of their tuition and fees. In the event that the account becomes past due, the University reserves the right to withhold services (e.g., transcripts, diplomas, registration, and other University services) until the past-due balance is paid in full. If full payment cannot be obtained, then the delinquent balance must be turned over to the Ohio Attorney General's Collection Enforcement Office for collection and it will be reported to the Credit Bureau. Once an account becomes delinquent, the student will be required to pay in advance of registering for subsequent terms. An account turned over to the Attorney General will incur interest and collection expenses which must be paid before any of the adverse sanctions can be removed.

Your enrollment at the University creates a contract between you and YSU. If you choose not to attend the University, you must officially withdraw from all courses by the 14th day to receive 100% refund or reduction of charges (see refund policy below). All days of the week are counted, including weekends and holidays, to determine the 14th day. Please be advised that all University offices are not open on weekends and holidays; thus, online withdrawal may be required.

If you decide to withdraw from the University once you have enrolled, you must access the registration functions through the *MyYSU Portal*.

## Fees

The Board of Trustees of Youngstown State University has pledged to make every effort to keep the required fees as low as is consistent with providing quality education. It is intended that fees not be adjusted more often than annually and that fee changes be announced in the spring or early summer. The Board of Trustees does, however, reserve the right to change any fee, charge, or fine without notice if conditions warrant.

See Students Fees and Charges. An explanation of each follows.

### Tuition

The sum of the instructional fee, the general fee, and the information services fee constitutes tuition.

### Instructional Fee

This fee is assessed to all students each term. The rate is per academic semester hour of credit for one to 12 credits or for more than 18 credits; it is a flat rate for students registering for 12 to 18 credits during one term. Students registering for 18 or more credits pay the flat rate plus the per-credit rate for each credit over 18. This fee supplements the state subsidy and is a source of revenue for the University's educational and general fund.

### Audited Courses

Students may audit courses (i.e., register to take a course without receiving credit). The fee for auditing a course is the same as if the course were taken for credit.

### General Fee

This fee is also assessed to all students each term; the rate depends upon the number of credits registered for. This fee is for non-instructional services such as Kilcawley Center, intercollegiate athletics, intramural sports, performing artists and lecture programs, student government..

### Non-Resident Tuition Surcharges

As noted above, all students pay the instructional fee, the general fee, and the information services fee. Those students who are not legal residents of Ohio must pay a surcharge in addition. Students who are residents of the Affordable Tuition Advantage area pay a lesser surcharge than do students who are legal residents of other states and/or areas. The Affordable Tuition Advantage area includes the counties of Chautauqua, New York; Armstrong, Clarion, Fayette, Forest, Greene, Indiana, Jefferson, and Warren counties in Pennsylvania; and Brooke, Hancock, Marshall, and Ohio counties in West Virginia. Also included Pennsylvania counties of: Allegheny, Beaver, Butler, Crawford, Erie, Lawrence, Mercer, Venango, Washington, and Westmoreland.

### Information Services Fee

This fee is charged to all students each term. It is applied on a per-credit basis to provide information technology infrastructure and services across campus, including the new Student Information Systems, wireless connectivity, classroom technology, and a continuous strengthening and securing of the computing and networking environment. It provides support for technology enhancements and initiatives contained within the IT Master Plan, supporting the vision to keep pace with an evolving, interactive, student-centered and collaborative electronic learning environment.

### Course Book and Supply Fee

This fee represents the cost for an eBook used in designated course(s). This fee is non-refundable after the 100% tuition refund period and cannot be appealed.

## College Fee

This fee is designed to recognize the differential cost of instruction among colleges. Examples of use include research instrumentation, enhanced teaching equipment, specialized software, specialized information resources (databases), maintenance and repair of capital equipment, technical and laboratory personnel support, and lab and instructional space upgrades.

## Credit by Examination Fee

A fee is charged for each course for an individual examination provided by an academic department to determine whether a student can be given academic credit for his or her knowledge of the course material. The fee must be paid before the test can be taken. This fee is charged on a per-credit basis.

## Graduation Fee

This nonrefundable fee is assessed when students apply to graduate to cover costs associated with graduation. If a student defers graduation and has paid the fee, the payment remains valid for the two academic terms following the term of application. Should a student graduate with more than one degree at a time, the fee will only be charged once.

## GRADUATE CONSORTIAL PROGRAM MFA

The Northeastern Ohio Universities Master of Fine Arts in Creative Writing is offered in a consortium of the four public universities of Northeast Ohio: the University of Akron, Cleveland State University, Kent State University, and Youngstown State University. The partnership program aligns with the missions of all four institutions to offer graduate programs that meet clearly defined regional needs. The hourly tuition rate is calculated annually based on the highest general fund and the highest instructional fee between the four institutions, approved by the fiscal representatives, and approved by the boards of trustees at each institution. The tuition collected supports the administration and the instructional offerings of the program through a revenue sharing model.

## GRADUATE CONSORTIAL PROGRAM Mph

The Consortium of Eastern Ohio Master of Public Health (CEOMPH) Program is provided cooperatively by the University of Akron, Cleveland State University, Northeast Ohio Medical University, and Youngstown State University. Rates of current graduate students for each partner, the rates of other MPH programs and annual increases are considered each year. Tuition and fees are recommended annually by the Fiscal Issues Committee and approved by the Governing Counsel and the boards of trustees at each participating institution. The tuition collected supports the administration and the instructional offerings of the program through a revenue sharing model.

## GRADUATE WORKSHOPS SPECIAL TUITION RATES

The workshop rate is charged for workshop credit for courses taught off-site and by approved and qualified faculty who are paid by another agency.

## NURSE ANESTHETIST PROGRAM SURCHARGE

This fee is charged to students in the CRNA track of the M.S.N. degree to cover costs deemed necessary for specialized equipment and training pertinent to training in anesthesia. The partnership between Youngstown State University and St. Elizabeth Health Center School for Nurse Anesthetists outlines this arrangement. The Board of Directors of the School sets this fee and it is approved by the board of trustees.

## Honors College Fee

This fee is used to offset programmatic funding needs such as Honors College Retreat, Academic Journal, student travel to the National Collegiate Honors Council annual conference and to support co-curricular, senior medallions, volunteer, and community service projects. The fee may also be used for facility needs.

## COLLEGE CREDIT PLUS INSTRUCTIONAL FEE

Fees for CCP are aligned with the state of Ohio's default CCP tuition structure. The fee the district pays to YSU is calculated based upon a percentage of the State ADM, which is paid to the district by the State of Ohio. There is a "floor", "middle", and "ceiling". At YSU, the State default floor is the charge for classes taught in the high school by credentialed high school teachers. The middle rate is for classes taught at the high school by paid YSU faculty. The ceiling is the tuition for classes taught online or on campus. The fee is usually paid by the school district if the course is taken for both high school and college credit, though there are exceptions. If the student only wants college credit, they self-pay.

## YOUNGSTOWN EARLY COLLEGE

Early College High School students pay a reduced fee in virtue of the school district's limited resources and the University and community's interest in promoting college attendance and completion for first-generation students in Youngstown.

## PENGUIN JUMP START

This program allows incoming freshmen who meet the established criteria to take up to six semester hours of specific courses at a significant tuition reduction during the summer term preceding their first fall semester. This enables them to get a jump start toward graduation.

## DISTANCE EDUCATION LEARNING FEES

As noted above, all students pay the instructional fee, the general fee, and the information services fee. Those students who are not legal residents of Ohio must pay a surcharge in addition. This fee is to offset to cost of technology and support needed to support fully online programs.

## Late Add Fee

Late adds will be granted on an exceptional basis only and there will be a late-add fee assessed for each course added after the add deadline. This fee is nonrefundable and cannot be appealed.

## Late Application for Graduation

Application for Graduation must be submitted within the first three weeks of the term. Applications submitted after this date will be assessed a non-refundable late fee.

## Late Payment Fees

Payment of a bill received after the due date results in assessment of a late payment fee. All fees and charges billed must be paid in full. Partial payments will result in assessment of a late fee. Payment plan participants who do not pay their scheduled payment amount by the due date are also subject to assessment of a late payment fee.

## Late Registration Fee

A fee is charged a currently enrolled student who fails to register for the next term at the assigned time and later registers at the time assigned new or returning students.

## SPECIAL PURPOSE FEES

- Bachelor of Science in Engineering
  - This program fee supports the office of professional practice which coordinates internships and co-ops.
- Bachelor of Arts in Telecommunications Studies
  - The Telecommunication Studies program fee is charged to offset the cost of production facilities and equipment, including a television studio, field equipment and other production technology. The fee is used to upgrade equipment to current industry standards.
- Honors College Fee

This fee is used to offset programmatic funding needs such as the Honors College student retreat, Academic Journal, student travel to the National Collegiate Honors Council annual conference, and support for co-curricular, senior medallions, volunteer, and community service projects. The fee may be also used for facility needs.

- **Master of Early Childhood Education**  
This fee covers expenses of recruiting and delivering instruction.
- **MBA Program Fee**  
The MBA Program Fee supports the design and delivery of the MBA program, and MBA activities and services that contribute to the success of MBA students.
- **Performance Music Fee**  
The Music Performance Fee This fee offsets the cost of maintaining the programs and facilities of the Dana School of Music including the purchase and repair of equipment, rental of performance venues, recording and archiving of Dana events, and other expenses. The performance fee helps us provide the best possible experience for our students and follow standards set by the National Association of Schools of Music. This program fee is charged in addition to regular tuition.
- **BCOE Regional Delivery Fee**  
A program fee used to cover expenses of delivering programs to cohorts studying at off-campus locations.
- **Studio Art**  
This fee enables the Department of Art to strategically plan for essential equipment upgrades and investment in new technologies that drive development and implementation of innovative curriculum including the purchase of large and costly equipment and digital technologies. As new processes and directions emerge in contemporary art, the Department of Art must introduce new and innovative instructional art making options into the curriculum to remain enrollment competitive with regional and national peer institutions.

## Transportation Fee

This fee is charged to all students each term registered for six or more credit hours in courses designated as on-campus. This fee will allow students to receive a parking permit (at no additional charge). Students must request the permit via MyYSU portal; the permit will give them unlimited access to shuttle service and admission into designated parking areas. The transportation fee supports the operating and maintenance costs of campus parking facilities, roadways and sidewalks, as well as student shuttle service. The fee does not guarantee an available space in any particular lot. Some facilities are restricted (e.g. for students only, for faculty and staff only, or resident hall residents only). The current Driving and Parking Regulations pamphlet and parking lot map should be consulted. The transportation fee is refundable only if the student has less than 6 credit hours (in courses designated as on-campus courses) by the last day of the 100% tuition refund period AND they return the permit access card and validation sticker within five days of either the withdrawal date or the last date of the 100% tuition refund period-whichever is earlier. The transportation fee is non-refundable after the 100% tuition refund period and cannot be appealed.

## Optional Parking Fee

This fee is optional each term for students registered for less than six credit hours in courses designated as on-campus. This fee is charged, upon request of the parking permit via MyYSU portal – and will appear on students' accounts as a "parking fee." The "optional" fee and parking permit will also allow the student to have unlimited access to shuttle service. Students requesting the parking permit after the 14th day of the term will not have the permit issued or shuttle services made available until payment of the fee. The fee supports the operating and maintenance costs of campus parking facilities, roadways and sidewalks, as well as student shuttle service. The fee

does not guarantee an available space in any particular lot. Some facilities are restricted (e.g. for students only, for faculty and staff only, or resident hall residents only). The current Driving and Parking Regulations pamphlet and parking lot map should be consulted. The fee is refundable only if the student returns the permit access card, validation sticker, and has less than six credit hours in courses designated as on-campus within five days of either the withdrawal date or the last date of the 100% tuition refund period, whichever is earlier. This fee is non-refundable after the 100% tuition refund period and cannot be appealed.

A daily fee is charged anyone without a permit who wishes to park in facilities designated for cash business. Persons other than employees and students who are on campus for a short period of time to conduct business may park in one of the visitors' lots if space is available.

## Performance Music Fee

This fee is charged in addition to the regular tuition. It is assessed students taking music lessons and is applied on a per-credit basis.

## Processing/Matriculation Fee

All first-time students will be assessed a non-refundable processing/matriculation fee to cover costs incurred for the use of University facilities, the development of publications, and other program/registration costs. Students are able to pay the fee by using the invoice located in their orientation packet or it will be billed electronically. If a student decides not to attend the University, he/she is still responsible for paying this fee.

## Proficiency Examination Fee

A fee is charged for an examination provided by an academic department to determine a student's proficiency for some reason other than assignment of academic credit. If academic credit is to be awarded, the credit by examination fee applies and not this fee.

## Technology/Laboratory Materials Fee

This fee is designed to partially offset expenses associated with courses that make use of supplies, equipment or personnel support beyond that associated with typical lecture courses. Examples include chemical supplies, engineering equipment, computers, software, and lab monitors. In addition, the First Year Materials Fee is designed to partially offset expenses associated with Campus Sexual Violence Elimination (SaVe) Act training, Financial Aid materials and training sessions with Financial Aid, Content and programming for a common intellectual experience including speakers and campus-wide events, Other materials, handouts, and software related to common elements of first year experience courses.

## Testing Fees

The University Office of Testing supervises a variety of special tests used for admission to college, graduate, or professional schools. The fees are established by the agencies responsible for the tests. Students are advised to contact the Testing Office for information and to make reservations.

## Transfer Matriculation Fee

All new transfer students will be assessed a non-refundable processing/matriculation fee to cover costs incurred for the use of University facilities, the development of publications, and other program/registration costs. Students cannot prepay this charge; it will be billed electronically. If a student decides not to attend the University, he/she is still responsible for paying this fee.

## Undergraduate Application Fee

This fee is charged to every new applicant for admission. This fee is non-refundable. Former students do not have to pay to apply for re-admission.

## Service Charges

### Computer-Based Placement Re-Test Fee

A nonrefundable fee is charged each time a computer-based placement test is retaken.

### Identification Card Replacement Charge

A nonrefundable charge is made for replacement of an ID card.

### Payment Plan Enrollment Fee

A nonrefundable fee is charged for enrollment in the payment plan. All tuition and fees are due in full by the payment due date unless the student enrolls in the payment plan.

### Physical Education Activity Charge

Certain activity courses (e.g. bowling, skiing, ice skating, scuba diving) are available only upon the payment of a charge sufficient to cover the cost of the facility or transportation. These charges are set by the operator of the facility, are paid by the student to that operator (not to the University), and are in addition to any other applicable fee.

### Housing Charges

University housing is available for the academic year and summer terms. The academic year contract includes fall and spring terms. Charges are billed each semester. The housing contract includes room and full meal plan. In addition to the charge for service, a security deposit is required. Payment and refunds are as scheduled in the housing contract. Meal plans are also available for students who are not residents in University Housing.

### PC Remediation Service Fee

Fee assessed for removal of all spyware and viruses from the PC and for installing the most current updates to applications and the operating system to help reduce the risk of future attacks. The first two PC remediation services are provided free of charge to current YSU students; the fee only applies to remediation performed beyond the first two free services.

### Data Recovery Service Fee

Fee assessed to recover data and/or transfer data that was successfully recovered onto a media device provided by the students i.e. flash drive, hard drive, or DVD. No fee assessed unless some or all of the data is recovered. Note: If it is necessary to remove the hard drive from the PC in order to recover data, the Tech Desk will NOT be able to perform the service, and no fee will be charged to the student.

### Returned Check, ACH (Electronic Check), or Credit Card Charge

A charge is levied on anyone whose check, ACH, or charge is returned unpaid by the bank. If any late payment results therefrom, the applicable fee is also assessed. Failure to pay billing of return check, ACH, and/or charge within six days; and/or a second check, ACH, or charge return will result in the University not accepting this type of payment at any of its collection points and may subject the student to financial suspension for the term.

### Student Locker Rental

A limited number of lockers are available in various buildings for the convenience of commuting students. Locker payments and assignments are made in Kilcawley Center.

### Thesis-Binding Charge

A charge is made for each copy of a master's thesis bound by the William F. Maag, Jr. Library.

### Transcript of Credits Charge

There is a charge for normal transcript processing requests as well as rush or overnight express requests issued by the Office of Records. Transcripts will not be issued for anyone with outstanding debts owed to the University.

## Fines

### Parking Violation Fine

Parking without a permit, parking in unauthorized areas and other offenses as identified in the *Parking Regulations* brochure will result in the issuance of a citation against the vehicle and its owner, or against the student responsible for the vehicle (e.g., a student driving a parent's car). Payment of a fine removes the citation. In certain cases, vehicles may be towed. See the regulations (<https://cms.yosu.edu/administrative-offices/parking-services/rules-regulations>) for detailed information.

### Library Fines

Fines are assessed for failure to return books on time as stipulated or for the unauthorized removal of a reserved book. Willful damage or defacement of library materials or other property is a violation of state law and is punished as such.

### Student Code of Conduct Violation

Fines may be assessed to students who have violated the Student Code of Conduct. These fines can be assessed by the Student Conduct Administrator or the Student Conduct Board after a disciplinary hearing. For a complete list of the possible fines that could be assessed to a student who is found responsible, please visit the Student Conduct Office website at [www.yosu.edu/administrative-offices/student-conduct/art-iv-sect-g](http://www.yosu.edu/administrative-offices/student-conduct/art-iv-sect-g) (<https://cms.yosu.edu/administrative-offices/student-conduct/student-code-conduct>).

## Reduction/Refund of Fees and Charges Upon Withdrawal

To withdraw from a single course, or from all courses (complete withdrawal), it is necessary to access the registration functions online via the MyYSU Portal – Registration. It is the student's responsibility to confirm that the withdrawal was correctly processed, and the course(s) is (are) deleted. Nonattendance of class, or notification to the instructor or department, does not constitute official withdrawal.

Effective Summer 2009, if a student is permitted to withdraw from the University or if a student reduces his or her academic load, a refund of the tuition charge, and the nonresident tuition surcharge, where applicable, shall be made in conformity with the following schedule for regularly scheduled courses:

Length of Course	100% Refund	No Reduction of Charges
<b>Fall and Spring Term Only</b>		
6 weeks or more	thru the 14th day <sup>1</sup>	15th day and later <sup>1</sup>
Less than 6 weeks	15% of course duration	greater than 15% of course duration
<b>New Row</b>		
<b>Summer Term(s) Only</b>	thru the 7th day	8th day or after

<sup>1</sup> Since access to registration/change of registration is now available online 24/7, every day of the week is counted (including weekends and holidays) when calculating tuition refunds. Be advised that University offices are not open most weekends and/or on holidays. Therefore, online withdrawal may be required.

Note: For a complete withdrawal from any term, all applicable fees, fines, and penalties will be deducted from any refunds. If fees were paid by scholarship, loan or grant-in-aid, the appropriate credit will be issued to the fund from which the



initial payment was made. Student accounts paid with financial aid may be subject to a financial aid repayment. No refunds will be issued until after the 15th day of the term.

If the student withdraws after the prescribed time limits (as indicated above), all tuition and other applicable fees and charges are forfeited.

If fees were paid by scholarship, loan or grant-in-aid, the appropriate credit is issued to the fund from which the initial payment was made. Refunds are calculated for Title IV recipients who completely withdraw during the first 60% of the semester.

Title IV financial aid funds are awarded to a student under the assumption that the student will attend school for the entire period for which the assistance was awarded. If a student completely withdraws on or before the 60% point in time of the period of enrollment, calculated using calendar days, a portion of the federal aid awarded (Federal Pell, SEOG, Perkins Loans, Direct Loans, and PLUS Loans – but not Federal Work Study) may need to be returned according to the provisions of the Higher Education Amendments of 1998. This recalculation may result in the student's owing a balance to Youngstown State University and/or the federal Department of Education.

Any withdrawal, or reduction in academic hours **after** the schedule outlined above will not be entitled to a reduction of charges and/or refund unless an Application for Involuntary Withdrawal is submitted and approved by the Fees and Charges Appeal Board. All decisions made by this board are final and binding.

If a student withdraws for reasons beyond his or her control (e.g., illness, military service, job transfer, or shift change imposed by the employer that creates a direct conflict with the class schedule), the fee charges may be reduced in proportion to the number of weeks enrolled, upon submission and approval of an application for involuntary withdrawal.

An application for involuntary withdrawal can be processed only for courses in which the student has already received a grade of "W" (withdrawn). Applications for involuntary withdrawal will be considered only for terms falling within the immediately preceding **one-year time period** (3 semesters). Appeals pertaining to terms beyond this one-year time limit will not be accepted. All applications for involuntary withdrawal must be documented, and are processed only by mail on forms provided by Office of University Bursar. Address such correspondence to:

Fees and Charges Appeals Board  
c/o University Bursar  
Youngstown State University  
One University Plaza  
Youngstown, OH 44555

## Title IV Credit Balance Refunds

Title IV students who meet all eligibility requirements at least 10 days before the start of a payment period and whose funds could have been disbursed and those disbursed funds would have created a Title IV credit balance will receive a refund no later than the seventh day of the payment period. The amount of the refund will be the lesser of the amount of the presumed credit balance or the amount needed to purchase books and supplies as determined by Youngstown State University. Refunds are sent as direct deposit to the student's bank account. A direct deposit profile must be set up via the MyYSU portal. Checks to the current address will be sent if no direct deposit is set up.

## Student Fees and Charges

Effective Fall 2017

(Instructional Fee, General Fee, and Information Services fees are required of all students except where noted).

## TUITION

### INSTRUCTIONAL FEE

Note: does not include College Credit Plus Students

Credits	Price	Per Semester/Hour
<b>Undergraduate Tuition</b>		
1 to 11 credits	\$270.00	per credit hour
12 to 18 credits	\$3,240.00	per semester
Over 18 credits	\$270.00	per credit hours
<b>Graduate Tuition</b>		
1 to 11 credits	\$429.25	per credit hour
12 to 18 credits	\$5,151.00	per semester
Over 18 credits	\$429.25	per credit hour
<b>Graduate Consortial Programs Tuition:</b>		
Master of Fine Arts	\$541.00	per credit hour
Master of Public Health	\$576.00	per credit hour
<b>Graduate Workshops</b>		
<b>Special Tuition Rates:</b>		
In-State Participant	\$155.16	per credit hour
Non-Regional Participant	\$165.46	per credit hour
<b>Doctoral Tuition</b>		
1 to 11 credits	\$429.25	per credit hour
12 to 18 credits	\$5,151.00	per semester
Over 18 credits	\$429.25	per credit hour
Nurse Anesthetist Program Surcharge	\$2,895.29	per semester

### GENERAL FEE

Credits	Price	Per Semester/Hour
1 to 11 credits	\$56.97	per credit hour
12 to 18 credits	\$683.64	per semester
Over 18 credits	\$56.97	per credit hour

### INFORMATION SERVICES FEE

Credits	Price	Per Semester/Hour
1 to 11 credits	\$10.00	per credit hour
12 to 18 credits	\$120.00	per semester
Over 18 credits	\$10.00	per credit hour

### Non-Resident Tuition Surcharge Information

As noted above, all students pay the instructional fee, the general fee, and the information services fee. Those students who are not legal residents of Ohio must pay an additional non-resident tuition surcharge. Students who are residents of the Affordable Tuition Advantage area pay a lesser surcharge than do students who are legal residents of other states and/or areas. The Affordable Tuition Advantage Area includes the New York counties of Chautauqua; Pennsylvania counties of Allegheny, Armstrong, Beaver, Butler, Clarion, Crawford, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lawrence, Mercer, Venango, Warren, Washington, and Westmoreland; and West Virginia counties of Brooke, Hancock, Marshall, and Ohio.

### AFFORDABLE TUITION ADVANTAGE SURCHARGE

Credits	Price	Per Semester/Hour
1 to 11 credits	\$15.00	per credit hour
12 to 18 credits	\$180.00	per semester
Over 18 credits	\$15.00	per credit hour

### NON-REGIONAL SERVICE AREA SURCHARGE

(Includes on-campus students who are out of state and out of the Affordable Tuition Area)

Credits	Price	Per Semester/Hour
<b>Undergraduate Surcharge</b>		
1 to 11 credits	\$250.00	per credit hour
12 to 18 credits	\$3,000.00	per semester
Over 18 credits	\$250.00	per credit hour
<b>Graduate Surcharge</b>		
1 to 11 credits	\$250.00	per credit hour
12 to 18 credits	\$3,000.00	per semester
Over 18 credits	\$250.00	per credit hour

### DISTANCE LEARNING OUT OF STATE FEES

(Includes students who are enrolled in distance education programs who are out of state and out of the Affordable Tuition Area)

Undergraduate and Graduate 12-18 credit hours bulk rate

Level	Fees
Level 1	\$3,122.40
Level 2	\$3,194.40
Level 3	\$3,338.40
Level 4	\$3,518.40
Level 5	\$3,698.40

Undergraduate and Graduate 1-11 credit hours and over 18 credit hours

Level	Fees
Level 1	\$260.20
Level 2	\$266.20
Level 3	\$278.20
Level 4	\$293.20
Level 5	\$308.20

## COLLEGE FEES

### Undergraduate College Fees

#### Bitonte College of Health & Human Services Fee (Junior and above)

Credits	Price	Per Semester/Hour
1-11 credits	\$12.50	per credit hour
12-18 credits	\$150.00	per semester
Over 18 credits	\$12.50	per credit hour

#### College of Science, Technology, Engineering & Mathematics (Junior and above)

Credits	Price	Per Semester/Hour
1-11 credits	\$25.00	per credit hour
12-18 credits	\$300.00	per semester
Over 18 credits	\$25.00	per credit hour

#### College of Liberal Arts & Social Sciences (Junior and above)

Credits	Price	Per Semester/Hour
1-11 credits	\$8.50	per credit hour
12-18 credits	\$102.00	per semester
Over 18 credits	\$8.50	per credit hour

#### Beeghly College of Education (Junior and above)

Credits	Price	Per Semester/Hour
1-11 credits	\$8.00	per credit hour
12-18 credits	\$96.00	per semester
Over 18 credits	\$8.00	per credit hour

### College of Creative Arts and Communication (All Undergraduates)

Credits	Price	Per Semester/Hour
1-11 credits	\$9.00	per credit hour
12-18 credits	\$108.00	per semester
Over 18 credits	\$9.00	per credit hour

### Williamson College of Business Administration (Junior and above)

Credits	Price	Per Semester/Hour
1-11 credits	\$20.00	per credit hour
12-18 credits	\$240.00	per semester
Over 18 credits	\$20.00	per credit hour

### COLLEGE CREDIT PLUS INSTRUCTIONAL FEE

(High School Students Participating in State of Ohio College Credit Plus program)

Note: General, and Informational Services fees are waived.

Credits	Price	Per Semester/Hour
Taught by the High School teacher at student's high school	\$41.57	per credit hour
Taught by YSU Instructor online	\$163.28	per credit hour
Taught by YSU Instructor on campus	\$166.28	per credit hour

### HOUSING CHARGES

Charges	Fees
<b>Housing Charges</b>	
Room and Board per academic year	\$9,090.00 (Payable as follows: \$4,545.00 fall semester, and \$4,545.00 spring semester)
Residence Hall Security Deposit – Paid first semester	\$200.00 (If a resident does not stay through spring semester, the \$200 deposit is forfeited)
Single Room Surcharge	\$900.00 per semester

#### Student Housing During Academic Breaks

1 to 3 days (no meals, per day)	\$26.00
Per week (includes 7 meals per week)	\$205.00
Summer Room and Board Apartments	\$260.00 (includes 10 meals per week)
Voluntary Board Plan	(students not in University housing) please call Dining Services at Ext. 3391

#### Weller House Apartments (per Academic Year - room only)

Two Bedroom Family Unit	\$10,000.00
One Bedroom single unit	\$8,000.00
Shared apartments with single bedrooms	\$7,000.00

#### Courtyard Apartments (room only, per person)

1 bed/ 1 bath	\$805 per month
2 bed/ 2 bath	\$680 per month
4 bed/ 2 bath	\$590 per month

#### Meal Plan Options (per semester)

Bronze	\$1,766.00
Silver	\$1,806.00

Gold	\$1,946.00
New Row	

### Voluntary Board Plan 9students not in University Housing) please call Dining Services at Ext. 3391.

\*Room and board amount shown here is based on Bronze-level meal plan selections. Rates are for Kilcawley, Wick, Lyden, and Cafaro houses

\*\*Effective FY18, Weller House converted to graduate and family housing, and rates charged per apartment instead of per bed.

### Special-Purpose Fees

Charges	Fees
ACT Test	\$55.00
Art Usage Fee	\$29.00 per course
College Level Examination Program Test Fee (CLEP)	\$25.00
College over 60 Registration fee	\$5.00
Bachelor of Science in Engineering	\$50.00 per student
Bachelor of Arts in Telecommunications Studies	\$35.00 per course
Career Service Fee (per credit hour)	Level 1 - Freshman and Sophomore \$1.75
Career Service Fee (per credit hour)	Level 2 - Junior and Senior \$2.75
Counseling Prep Comprehensive Exam (CPCE)	\$40.00
Credit by Examination <sup>1</sup>	\$20.00 per credit hour
Course Book and Supply	\$ Variable
Deferred Payment fee (employer paid only)	\$50.00
Equipment & Materials Replacement Fee	Market value
Federal Background Check	\$28.00
Finger Printing Fee (per occurrence)	\$37.00
Graduation Fee	\$65.00
Graduation Fee Late Application (after 3rd wk. of term)	\$38.50
Graduate Student Application Fee	\$45.00
Honors College Fee (per semester)	\$25.00
Installment Payment Plan Enrollment Fee	\$45.00 per semester maximum
Internal Revenue Service/1098T penalty for incorrect name/SSN match	\$100.00
International Graduate Student Credential Evaluation	\$45.00
International Student Health Insurance	pass-thru charge, set by Ins. Carrier-Variable
International Undergraduate Student Credential Evaluation	\$75.00
Master in Early Childhood Education	\$30.00 per credit
Late Payment Fee	\$50.00 per month
Late Registration Fee	\$75.00
Late Class Add Fee (Charged for each course added after the last published date to add a class)	\$50.00 per course
MAT Test	\$90.00
Processing/Matriculation Fee (Undergraduate)	\$110.00
Processing/Matriculation Fee (Transfer Students)	\$110.00
MBA Program Fee	\$50.00 per credit

Ohio Attorney General Payment/Collection Fee	Variable
Performance Music Fee	\$75.00 per credit
Parking Permit – Students, Fall & Spring (optional 0-5 credit hours)	\$155.00 per semester
Parking Permit – Students, Summer Term (optional 0-5 credit hours)	\$78.00
Parking Per day without permit	\$5.00
Peace Officer Training Academy Fee	\$300.00 per semester
Physical Therapy Doctoral Acceptance Deposit	\$500.00
Proficiency Examination <sup>2</sup>	\$45.00 per course
Study-Abroad Fee	\$75.00
<b>Technology/Laboratory Materials Fee</b>	
Level 1	\$35.00 per course
Level 2	\$50.00 per course
Level 3	\$65.00 per course
Level 4	\$300.00 per course
Level 7	\$20.00 per course
Level 8	\$85.00 per course
Level 9	\$25.00 per course
Level 10	\$200.00 per course
Level 11 (cooperative charge)	\$350.00 per course
Level 12	\$300.00 per course
Level 13	\$100.00 per course
First Year Experience	35.00 per course
Transportation Fee, Fall & Spring Terms (Required 6 plus credit hours listed in campus courses)	\$155.00 per semester
Transportation Fee, Summer Term (Required for 6 plus credit hours listed on campus courses)	\$78.00 per semester
Undergraduate Application Fee (first-time applicant)	\$45.00
Undergraduate Application Fee (former student returning)	0.00
Web-Based Courses Fee (Distance Learning Fee)	\$100.00 per credit hour
Youngstown Early College	\$106.00 per credit hour
Youngstown Early College (full time bulk rate, 12-18 hours)	\$1,272.00

<sup>1</sup> Credit awarded for courses based upon the successful completion of a test administered by an academic department at YSU. The course title appears on the transcript but no grade is listed.

<sup>2</sup> A course or courses may be waived based on the performance on an examination. No academic credit is given and the course is not listed in the transcript.

### Service Charges

Charges	Fees
Child Preschool Laboratory Fee	\$150.00 per semester
Check Replacement Fee	\$25.00
Computer-Based Placement Re-Test	\$20.00 per test
Duplicate Diploma Fee	\$40.00
Finger Printing Fee	\$37.00 per occurrence
Human Performance and Exercise Science Activity	Variable to cover cost in that course
Credit Card Convenience Fee (student accounts only)	2.75% minimum of \$3.00

I.D. Replacement Charge	\$25.00
Intramural Team Deposit	\$10.00 per team
Library Study Carrel Rental	\$25.00
PC Data Recovery Service Fee	\$100.00 per occurrence
PC Remediation Service Fee (if 3 or more occurrences per academic year)	\$75.00
Reading Tutoring Fee	\$38.00 per semester
Returned Check or Credit Card Charge	\$30.00
Rich Autism Center Pre-School Programs	\$125.00 per week
Student Health Insurance	Go To: <a href="http://cms.ysu.edu/administrative-offices/student-health/student-health">http://cms.ysu.edu/administrative-offices/student-health/student-health</a>
Thesis Binding	\$25.00
Transcript Fee	\$6.00
Transcript Rush Fee (same day processing, US mail or in person)	\$12.00
Transcript Rush Fee (overnight express)	\$35.00

## Parking Violations

Charges	Fees
Class 1 – Minor violations	
1st offense	\$25.00
2nd offense	\$30.00
3rd offense	\$35.00
Class 2 – Major violations	\$100.00
Class 3 – Legal violations	\$150.00

For more information go to Parking Violations Information (<https://cms.ysu.edu/administrative-offices/parking-services/parking-violations>).

## MAGG Library & Curriculum Resource Center Fines & Fees

Overdue charges and loan periods differ by type of materials:

- **Most Library Books, CDs, Videos:** No daily fines. At (15) days past due: \$10.00 processing fee plus the item replacement cost.
- **OhioLINK Materials:** Fine \$0.50 per day to a maximum of \$15.00, plus a \$35.00 processing fee and \$75.00 item replacement cost.
- **Reserves, MMC All Other, CRC Non-Print:** \$0.55 per hour/day to a maximum of \$11.00, plus a \$10.00 processing fee and the item replacement cost.

For further Circulation policy details, visit MAAG Circulation Policy (<http://maag.ysu.edu>).

## Student Fines for Violations of the Student Code of Conduct

Failure to attend Student conduct Conference of Hearing \$25.00; Failure to complete a disciplinary sanction \$25.00; Restitution for lost/stolen/damaged property while in possession \$50 plus restitution.

Substance Abuse Violation: 1st Offense \$75.00; 2nd Of fence \$125.00; 3rd Offense \$175.00.

Drug/controlled substance use/possession/unauthorized prescription drug: 1st Offense \$100.00; 2nd Offense \$150.00; 3rd + Offense \$250.00

Serious Violations of The Student Code of Conduct: Violent/threatening behavior \$150.00; Theft \$150.00; Weapons \$150.00; Drug sales/distribution \$250.00; Other fines corresponding to the nature of the violation up to \$250.00

THE UNIVERSITY RESERVES THE RIGHT TO CHANGE ANY FEE WITHOUT NOTICE.

## Financial Aid, Scholarships, and Awards

Youngstown State University has a comprehensive program of financial assistance which includes scholarships, grants, work-study, and loans. Most of these programs are administered by the Office of Financial Aid and Scholarships.

Links to the following resources are conveniently located at the Office of Financial Aid and Scholarships' website Financial Aid and Scholarships (<http://www.ysu.edu/content/office-financial-aid-and-scholarships>).

1. **Free Application for Federal Student Aid (FAFSA):** A common form used to apply for federal and state need-based grant aid and student loans.
2. **Youngstown State University Scholarship Search:** An online search engine to locate and apply for YSU-specific scholarship funds offered through the Youngstown State University Foundation.
3. **Youngstown State University Foundation Scholarship Application:** An online form application which, upon completion, considers students for a number of scholarships awarded through the YSU Foundation and its donors.

All YSU applicants for admission, or current students, seeking financial assistance through the Free Application for Federal Student Aid (FAFSA) should apply no later than December 1 for new students and February 15 for continuing students. Students interested in applying for institutional grants and scholarships should adhere to those individual deadlines as noted on their respective applications.

For maximum consideration, both new and continuing students are encouraged to meet priority deadlines in applying for financial aid.

## Scholarships

Scholarships are gift aid awarded to students on the basis of superior academic performance or talent, other specific criteria as set forth by the individual donor, and/or on the basis of financial need. Scholarships do not have to be repaid. Amounts may vary depending on the academic ability, financial need, and/or the current state of funding or endowment support for the scholarship. Scholarship funds have been established at YSU by individuals, corporations, clubs, and both religious and fraternal organizations. In addition, the Youngstown State University Foundation administers endowments which provide substantial funding for numerous scholarship programs at Youngstown State University, including the Scholarships for Excellence program.

Scholarships awarded to current Youngstown State University students are based on the student's academic record, character, and/or financial need. Scholarships for incoming freshmen are awarded on the basis of high school academic record, grade point average (GPA), scores on standard college entrance examinations, and in limited situation, class rank. Scholarship applicants are considered for all scholarships appropriate to their aims and interests.

To be considered for scholarships, students should complete all appropriate forms by their established due date each year. To search a complete listing of scholarships, visit the office website (<http://cfweb.cc.ysu.edu/finaid>). Additionally, students seeking consideration for need-based scholarships will also need to complete a Free Application for Federal Student Aid (FAFSA) found at [fafsa.gov](https://fafsa.gov) (<https://fafsa.gov>).

Students are also encouraged to explore these supplemental options for scholarship resources:

- Their particular college or department for academic specific scholarships
- Student's and/or parent(s)' employer for scholarships or fee remission opportunities

- Local community resources for scholarship programs, such as church organizations and libraries
- Free internet web searches through sites such as Fastweb (<http://www.fastweb.com>) or FinAid (<http://www.finaid.org>)

### Scholarships for Excellence

Please check with the Office of Financial Aid and Scholarships for the most current scholarship information.

Scholarships for Excellence are awarded by the University and largely funded by the YSU Foundation. The YSU Foundation, with an endowment of over \$212 million, is committed to providing the “edge of excellence” for the University, providing more than \$8 million in scholarship assistance annually for YSU students. These Scholarships for Excellence are awarded to eligible **new high school graduates, transfer students, and current students**. Current and transfer students will automatically be considered for these scholarships. In addition, incoming freshmen should apply for admission by February 15 to be considered for these scholarships automatically.

**Please note:** Undergraduate Scholarships for Excellence guidelines are **subject to change**. Students cannot be awarded more than one scholarship through the Scholarships for Excellence program.

Click the following link to view a current list of the Scholarships for Excellence (<http://www.yсу.edu/content/office-financial-aid-and-scholarships/scholarships>).

### Other YSU Scholarships

For a listing of scholarship opportunities currently available to YSU students, go to the Scholarship Search ([http://cfweb.cc.yсу.edu/finaid/scholar/est\\_scholar.cfm](http://cfweb.cc.yсу.edu/finaid/scholar/est_scholar.cfm)).

## Grants-in-Aid

Grants-in-Aid are gift monies that do not need to be repaid. The amount of grant aid awarded is determined by the recipient’s financial need and/or academic record and character. The following is a list of Grant-in-Aid funds a student could potentially qualify to receive:

- **Federal Pell Grant:** A need-based federal grant provided to eligible undergraduate students pursuing a first bachelor’s degree or associate’s degree. A FAFSA must be filed yearly to be considered for this grant.
- **Federal Supplemental Educational Opportunity Grant (FSEOG):** A need-based grant funded by the federal government and awarded by YSU. Students who meet the eligibility requirements for the Federal Pell Grant, and meet the priority filing deadline of December 1 for new students and February 15 for continuing students, receive primary consideration for this campus-based aid program.
- **Ohio College Opportunity Grant (OCOG):** Grant funds awarded by the State of Ohio to full-time, undergraduate students who are residents of Ohio and who are pursuing a first bachelor’s degree or associate’s degree. Eligibility is based on family income. The FAFSA must be completed by October 1 of each year to be considered for this grant.
- **Pennsylvania Higher Education Assistance Award (PHEAA):** Grant funds provided to Pennsylvania residents who are YSU students. Students may be full-time or half-time undergraduates enrolled in an approved program of study requiring at least two years to complete. File the FAFSA by May 1 of each year to be considered for this grant.
- **YSU Foundation PHEAA Supplemental Grant:** Due to the legislative cap on Pennsylvania grants to Pennsylvania residents attending Ohio universities, YSU has initiated a supplemental grant program funded by YSU and the YSU Foundation. This grant will be automatically awarded to YSU students who are awarded and eligible to receive a PHEAA grant. The supplemental grant will be awarded in amounts up to 200% of the PHEAA grant, subject to availability of funds.
- **Veterans’ Administration Education Assistance:** The Department of Veterans’ Affairs provides education assistance to veterans or current armed service personnel. Programs include contributory plans,

rehabilitation benefits, work-study, and dependent/spousal benefits. Contact the Office of Veterans Affairs at (330) 941-2503 or toll-free at 888-GI-BILL1 (888-442-4551).

- **Bureau of Vocational Rehabilitation Awards:** Programs funded by the Bureau of Vocational Rehabilitation in Ohio (BVR) and the Office of Vocational Rehabilitation in Pennsylvania (OVR) that provide grants for tuition, fees, and/or books for residents with disabilities. Eligibility is determined by each state’s Bureau.
- **Ohio War Orphans:** Grant funds for children of disabled or deceased U.S. Armed Forces veterans. There is a needs test required, the student must be an Ohio resident attending an Ohio college or university, and be under the age of 25 upon application. The grant pays a percentage of tuition and fees. For additional information, contact (614) 752-9528.
- **Ohio National Guard:** Provides grants paying for 100% of instructional and general tuition fees for members who are full-time undergraduates. Apply through the National Guard. Pay close attention to deadlines. For additional information, contact (614) 336-7053

## Employment

To assist in paying for educational and living expenses, currently enrolled students in good standing may apply for on-campus employment. On-campus employment opportunities are posted in the Office of Student Success, outside of the Office of Financial Aid and Scholarships, or online (<http://cms.yсу.edu/administrative-offices/student-employment/current-student-employment-openings>). Students are encouraged to check regularly for open positions.

**Federal Work-Study** is a need-based program that provides eligible students with funding for on-campus employment. Federal Work-Study students receive paychecks for hours worked and may utilize those funds toward educational and living expenses. To receive maximum consideration for this campus-based program, the FAFSA must be filed by the priority deadline of December 1 for new students and February 15 for continuing students with the student having answered “yes” to the question “Are you interested in being considered for work-study?” on the application.

## Loans

Loans are a form of self-help financial aid utilized by many students to help meet educational expenses. Borrowing responsibly is key as many loans have borrowing limits, accrue interest, and must be repaid.

- **Federal Direct Subsidized and Unsubsidized Stafford Loans:** The federally funded Subsidized Stafford Loan has its interest paid while the student maintains at least half-time enrollment. Federal Unsubsidized Stafford Loan interest accrues from the time the loan is first disbursed. (Note: Graduate students are only eligible for unsubsidized loans.) For a list of the most current interest rates on Stafford Loans, please see the Federal Student Loan (<http://www.yсу.edu/content/office-financial-aid-and-scholarships/student-loans>) page on the Office of Financial Aid and Scholarships website. Repayment of both types of Stafford Loans begins six months after graduation, separation, or enrollment of less than half-time. Student borrowers cannot exceed their designated annual loan limits and maximum total debt allowed by federal law (see the Office of Financial Aid and Scholarship’s website (<http://www.yсу.edu/content/office-financial-aid-and-scholarships>) for more information).
- **Federal Direct PLUS Loan:** This federally funded loan is for the parents of dependent, undergraduate students who are potentially eligible to borrow based on their credit-worthiness. Parents interested in this loan option should log into [www.studentloans.gov](http://www.studentloans.gov) (<https://studentloans.gov/myDirectLoan/index.action>) and complete the Parent PLUS Loan application for consideration. Repayment of the Federal PLUS Loan generally begins sixty days after the final loan disbursement of each academic year. Current interest rates on the Federal Parent PLUS loan can be found on the Federal Student Loan (<http://www.yсу.edu/content/office-financial-aid-and-scholarships/student-loans>) page of the Office of Financial Aid and Scholarships website.

- **Federal Direct PLUS Loans for Graduate and Professional Students:**

This federally funded loan is available to students who are enrolled in a graduate or professional program (a program that leads to a master's or doctoral degree) and who have reached their annual Stafford Loan limit. Additional requirements include minimum half-time enrollment and good credit history as a credit check is required for approval. Repayment will begin within sixty days of the loan reaching full disbursement. Current interest rates on the Federal Direct PLUS Loan for Graduate and Professional Students can be found on the Federal Student Loan (<http://www.ysu.edu/content/office-financial-aid-and-scholarships/student-loans>) page of the Office of Financial Aid and Scholarships website.

- **Federal Perkins Loan:** This federally funded loan has an interest rate of 5% which is subsidized by the federal government while the student is enrolled at least half-time in school. Students must meet the Perkins Loan eligibility criteria, have exceptional financial need, and be enrolled in an eligible program. Repayment of the Perkins Loan begins nine months after graduation, separation, or enrollment of less than half-time status. Awards are subject to availability of funds and issued on a first-come, first-serve basis.

#### Part-time Students

Aid is available for part-time students, though the amount of part-time aid and the types of aid available vary. Be sure to file the FAFSA by December 1 for new students and February 15 for continuing students for maximum consideration. It is also recommended to check directly with the Office of Financial Aid and Scholarships to discuss how part-time attendance can ultimately affect a student's overall financial aid eligibility.

## Federal Verification

Students selected for verification are required to submit certain documentation to the Office of Financial Aid and Scholarships. Students should submit this requested documentation as soon as possible so that the processing of financial aid is not delayed. Even if the student initially applies on time, any delay in processing due to verification could result in that student not receiving financial aid that they may have otherwise been eligible to obtain. Processing typically takes up to 3 weeks, but can take longer during peak processing periods.

Keep copies of all tax forms, tax return transcript(s), and W-2 forms each year, as well as any documents or forms submitted to the Office of Financial Aid and Scholarships.

#### Submitting Tax Information

There are two ways to provide your tax information for the verification process:

1. Use the IRS Data Retrieval Tool provided on the FAFSA (recommended)
2. Provide a copy of your IRS Tax Return Transcript

Tax return transcripts can be ordered by calling 1-800-908-9946, or online (<https://www.irs.gov/individuals/get-transcript.html>).

#### Special Circumstances

If a student and/or their family have unusual circumstances that have occurred during the academic year, such as excessive medical expenses or a loss in income, contact the Office of Financial Aid and Scholarships to discuss the situation with a counselor.

## Satisfactory Academic Progress (SAP) Policy

Federal regulations require that Youngstown State University review the academic progress of students annually, whether they are a previous aid recipient or not. The purpose of this review process is to measure whether a student is making satisfactory progress towards his or her educational goals. The following federal programs are affected when a student is not in compliance with the Satisfactory Academic Progress Policy:

#### Federal Pell Grant

#### Federal Supplemental Educational Opportunity Grant (FSEOG)

#### Federal Work-Study Program

#### Federal Perkins Loan

#### Federal Stafford Loans (subsidized and unsubsidized)

#### Parent PLUS Loans for Undergraduate Students

#### PLUS Loans for Graduate Students

State grant programs such as the Ohio College Opportunity Grant (OCOG) and the Pennsylvania Higher Education Assistance Award (PHEAA) are not governed by the federal Standards of Academic Progress, but rather, by the respective state.

YSU's Satisfactory Academic Progress requirements for undergraduate and graduate students include the following three components:

#### 1. Grade Point Average (GPA)

All students at YSU are required to maintain a minimum cumulative grade point average. To be considered in good academic standing, a student must have a 2.0 GPA. Graduate students are required to maintain a 3.00 GPA. The following grades are included in the GPA calculation: A, B, C, D, and F. The GPA calculation excludes the following grades: CR-Credit, NC-No Credit, AU-Audit, I-Incomplete, and W-Withdrawal. For Incompletes (I), the credit hours apply to the term the student was enrolled, not the term the student was making up the Incomplete.

**\*Students academically suspended cannot receive federal aid during the period of suspension.**

#### 2. Max Time Frame

When a student's attempted hours reach 150% of the maximum hours needed to complete an associate (109 hours) or bachelor's (217 hours) degree, federal financial aid eligibility will be suspended unless the time frame is extended with an appeal accompanied by an Academic Advisor Evaluation. Graduate degrees must be completed by the length of time standards established and monitored by the College of Graduate Studies.

#### 3. Percentage Completion

1. **Freshmen** undergraduate students (0-29 credit hours earned) must complete a **minimum of 55%** of the total hours attempted each year;
2. **Sophomore** undergraduate students (30-59 hours earned) must complete a **minimum of 60%** of the total hours attempted each year;
3. **Junior** undergraduate students (60-89 hours earned) must complete a **minimum of 65%** of the total hours attempted each year;
4. **Senior** undergraduate students (90+ hours earned) must complete a **minimum of 70%** of the total hours attempted each year;
5. **Graduate** students (13+ grad hours attempted) must complete a **minimum of 50%** of the total hours attempted each year

Percentage completion will be calculated by dividing completed hours by attempted hours. For federal financial aid Satisfactory Academic Progress purposes, attempted hours exclude audited hours and withdrawals made by the last date to receive a 100% refund. The following grades negatively impact the percentage completion calculation: F-Failed, NC-No Credit, AU-Audit, I-Incomplete, and W-Withdrawal. For Incompletes (I), note that the credit hours apply to the term in which the student was enrolled in the course, not the term the student was making up the Incomplete.

#### Transfer Students

Transfer students will be eligible for federal aid through the spring semester of the academic year they begin at YSU. During the spring semester, these students will be evaluated under the Satisfactory Academic Progress Policy.

Transfer hours will be included in the number of hours earned and attempted, but only YSU grades enter into the GPA calculation.

**Non-Degree Students (undergraduates, post-undergraduate, and graduate)**

A student must be enrolled in a degree program to receive federal financial aid.

**SAP Appeal Process**

If a student is non-compliant, he/she must **appeal** the denial of financial aid by submitting an appeal form that explains the circumstances. Supporting documentation may be required. Appeals will be evaluated by the Satisfactory Academic Progress Appeal Committee which will respond in writing with the decision within 30 days.

**The decision made by the Satisfactory Academic Progress Appeal Committee is final. The Satisfactory Academic Progress Committee may also cite and deny students who exhibit a pattern of federal student aid abuse. Federal regulations require students who successfully appeal to be placed on a semester-based Financial Aid Probation and Academic Progress Plan. The terms and conditions of the Academic Progress Plans must be met in full to continue to receive federal aid for future semesters by the conclusion of the probationary semester.**

Students who do not appeal, or who are denied by the Committee, will not be eligible for federal financial aid programs. Students will remain denied until their academic record is once again in compliance with the Satisfactory Academic Progress Policy. To attain compliance, students must attend school without federal financial assistance while clearing their Satisfactory Academic Progress. When reinstatement is granted, a student may be considered for those financial aid funds available at the time.

This policy is effective beginning with the 2011-2012 aid year.

## Financial Aid Refund Policy

The refunding of financial aid funds to the appropriate funding source corresponds to federal regulations, the Return to Title IV fund requirements, and YSU's refund policy regarding student fees upon withdrawal from class(es). For additional information, please see the section titled "Reduction/Refund of Fees and Charges Upon Withdrawal" within the Tuition, Fees, and Charges section of the catalog.

## Commonly Used Financial Terms

**Cost of Attendance (COA):** The total cost of attending school for one academic year, including direct costs (tuition, fees, room, and board) and indirect costs (books, supplies, transportation, and additional miscellaneous expenses).

**Expected Family Contribution (EFC):** The amount that a student and their family will be expected to contribute toward educational expenses, as determined by the federal government, based on the information supplied on the FAFSA. For more information regarding the formula used to determine the EFC, go to the "How Aid is Calculated" section of the Federal Student Aid website (<https://studentaid.ed.gov/sa/fafsa/next-steps/how-calculated>). Information on EFC calculations can also be obtained by calling 1-800-4-FED-AID.

**FAFSA (Free Application for Federal Student Aid):** A common form found online at [fafsa.gov](https://fafsa.gov) (<https://fafsa.gov>) that a student (and parents when applicable) complete in order for the federal processor to determine the student/family EFC. The EFC is then used by YSU to determine a student's overall financial need. FAFSA must be completed each year in order for a student to be considered for loans, grants, and certain scholarships.

**Financial Aid:** All forms of financial assistance which include gift aid (scholarships and grants), as well as self-help aid (work programs and loans).

**Financial Need:** The difference between the Cost of Attendance and the Expected Family Contribution.

**Gift Aid:** Aid, usually in the form of scholarships and grants, that does not have to be paid back.

**Grant:** Gift aid awarded to a student on the basis of financial need, and in some cases, academic performance and character. Grants do not have to be paid back.

**Scholarship:** Gift aid awarded on the basis of academic performance, talent, other unique criteria as established by the donor/organization, and/or financial need.

**Subsidized:** A subsidized loan is a need-based loan in which the government pays the interest while the student is enrolled at least half-time in school.

**Verification/Documentation:** The process by which YSU confirms the accuracy of the information supplied on FAFSAs each year as required by federal regulation. If a student is selected for verification/documentation, they (and their parents when applicable) will be asked to supply the Office of Financial Aid and Scholarships with additional information and copies of documents such as W-2's and federal tax return transcripts.

**Unsubsidized:** An unsubsidized loan is not based on financial need. The borrower is responsible for all interest that accrues.

## Office Information And Hours

**Mailing Address:**

Youngstown State University  
Office of Financial Aid and Scholarships  
One University Plaza  
Youngstown, OH 44555-3505

**Telephone:** (330) 941-3505

**Appointment Line:** (330) 941-3506

**Fax:** (330) 941-1659

**Email:** [ysufinaid@ysu.edu](mailto:ysufinaid@ysu.edu)

**Web address:** [www.ysu.edu/finaid](http://www.ysu.edu/finaid) (<http://www.ysu.edu/content/office-financial-aid-and-scholarships>)

**Office Hours:** Monday-Friday; 8:00am-5:00pm

**Walk-in Hours:** Monday-Friday; 10:00am-12:00pm and 2:00pm-4:00pm

## Academic Policies and Procedures Placement Tests

New students may be required to take placement tests to determine their readiness for college-level work. If placement testing shows that students are not prepared for college-level work, they will be placed into one or more developmental courses in English Composition, Reading and Study Skills, and/or Mathematics. The Composition Placement Test, the ACCUPLACER® Reading Test, and the ALEKS® Math Test are required of all students unless there is an automatic placement or exemption due to ACT/SAT scores. Students who have AP credit or transfer coursework may not need placement testing. Students will be informed about what testing is needed when they are accepted for admission to the University.

Students who are required to take one or more placement tests must do so before advisement and registration.

## Composition Placement Test and ACCUPLACER Reading Test

The Composition Placement Test and the ACCUPLACER® Reading Test are required of a student who has not been placed through ACT/SAT scores, or is not required to take the ACT/SAT test. No student is permitted to register for classes without having taken the tests, except those students placed into English classes for non-native speakers and those with approved transfer credit.

Students placing into the following developmental courses must complete the specified coursework within their first 36 semester hours. Otherwise, the student will be limited to enrolling only for those developmental classes until they are completed successfully.

COURSE	TITLE	S.H.
RSS 1510A	Advanced College Success Skills	3
RSS 1510B	Basic College Success Skills	3
ENGL 1539	Fundamentals of College Writing	4
ENGL 1540	Introduction to College Writing	3

Conditionally admitted students placing into RSS 1510B Basic College Success Skills must take that course in their first semester. Conditionally admitted students placing into the following courses must take these courses within their first 20 semester hours.

COURSE	TITLE	S.H.
RSS 1510A	Advanced College Success Skills	3
ENGL 1539	Fundamentals of College Writing	4
OR		
ENGL 1540	Introduction to College Writing	3

Students directed to enroll in the following courses must do so. The student may not withdraw from these courses unless he or she is making a complete withdrawal from the University.

COURSE	TITLE	S.H.
ENGL 1539	Fundamentals of College Writing	4
ENGL 1540	Introduction to College Writing	3
RSS 1510A	Advanced College Success Skills	3
OR		
RSS 1510B	Basic College Success Skills	3

None of the above-named mandatory developmental courses may be taken more than twice without the approval of the college dean. Should a student not successfully complete any of these courses within two attempts, or if he or she withdraws from them twice, the student will be unenrolled from the University.

*Please note that credit hours from the following courses will not count toward a degree.*

COURSE	TITLE	S.H.
ENGL 1509	Academic English for Non-native Speakers	3
ENGL 1512	English Conversation for Non-native Speakers	1
ENGL 1539	Fundamentals of College Writing	4
ENGL 1540	Introduction to College Writing	3
RSS 1510A	Advanced College Success Skills	3
RSS 1510B	Basic College Success Skills	3

## English Composition Requirement

A student must complete the regular English composition requirement for graduation within the first 60 hours of coursework. A student who does not complete the English requirement within the first 60 hours of coursework will

be prohibited from registering for any additional upper-division courses until the English requirement has been met. Transfer students having completed 60 hours or more are exempt from this policy for their first 12 hours of enrollment at Youngstown State University.

For more information about Placement Tests, please visit the Testing Center (<http://cms.yzu.edu/administrative-offices/testing-center/testing-center>) website.

## ALEKS Math Test

Students who have not been placed through ACT/SAT scores or are not required to take the ACT/SAT test must take the ALEKS® Math Test unless they have approved AP math credit or sufficient transfer coursework. Students will be placed into appropriate mathematics courses based on their ACT/SAT scores or the ALEKS® Math Test.

*Please note that credit hours from the following developmental courses will not count toward a degree.*

COURSE	TITLE	S.H.
MATH 1501	Elementary Algebraic Models	5
MATH 1505	Intermediate Algebra with Applications	5
MATH 1507	Intermediate Algebra	3

For more information regarding math coursework, visit the Department of Mathematics and Statistics (<http://www.yzu.edu/academics/science-technology-engineering-mathematics/mathematics-major>) website. For a sample math placement test, visit ACT.

## Foreign Language Placement Test

Students in AB degree programs must satisfy a foreign language requirement for the degrees. Students in the BA and BM degree programs in the College of Creative Arts and Communication should consult with advisors in that college.

Students may enroll in any 1550 elementary foreign language course without taking the FLPT.

Students who wish to begin their college-level foreign language study with 2600 Intermediate or above to satisfy the requirement MUST take the foreign language placement test (FLPT).

Students with AP credit in a foreign language have completed the requirement. Students with transfer credit for college foreign language courses may enroll in the next course in the sequence.

Visit the Foreign Language Requirement (p. 280) page for more information.

## Academic Advisement

### Academic Advising Mission

Academic advising at YSU is an integrated teaching and learning process built upon an ongoing interactive partnership between students and their advisors.

Academic advising supports students in developing a balanced scholastic plan that will provide them with a solid foundation for academic success and empower them to take responsibility for achieving their life-long educational and career goals.

(Adopted February 2010)

### Who Requires Academic Advising?

Advisement is required for the following students:

- Freshmen (fewer than 30 hours)
- Students not in good standing (warning, probation)
- First semester transfer students



- Returning former students
- Athletes
- Post-secondary enrollment (College Credit Plus)

## Reasons to See an Advisor

Academic advisors strive to support students as they navigate their way through college so they can reach their academic goals. Here are a few reasons why you might want to make an appointment to see an academic advisor:

- Need help understanding requirements to finish your degree
- Need an explanation of YSU academic policies and/or regulations
- Have questions about majors and/or minors
- Need assistance in the creation of an academic plan toward graduation
- Have academic difficulties and want to know where to find help
- Want to prepare for the application process to restricted majors such as nursing, dental hygiene, respiratory care, and social work
- Feel confused, overwhelmed, or generally unsure about what you should be doing
- Want to keep on the path to graduation

## What You Will Learn from Meeting with Your Advisor

- You will gain an understanding of the requirements of your major
- You will learn about the University requirements to obtain a degree, including:
  - General Education requirements
  - Upper division requirements
  - Total hour requirements
  - Minor requirements
- You will be informed of relevant University policies and learn to navigate them, including:
  - Changing majors
  - Withdrawing from classes
  - Warning, probation, and suspension policies
  - Course repetition
  - Degree audit
  - Application for graduation audit
  - Graduation application
- You will learn about and be referred to relevant campus resources (as needed)
- You will learn to make short-term and long-range plans for your college career that will supplement your career and life goals
- You will understand how your curriculum and college experiences relate to your future career goals

## College Advising Offices

- Beeghly College of Education (BCOE), Room 2102 (Telephone: 330-941-3268)
- Bitonte College of Health and Human Services (BCHHS), Cushwa Hall, Room 2104 (Telephone: 330-941-1820)
- College of Creative Arts and Communication (CCAC), Bliss Hall, first floor (Telephone: 330-941-3625)
- College of Liberal Arts and Social Sciences (CLASS), DeBartolo Hall, Room 121 (Telephone: 330-941-3413)
- College of Science, Technology, Math, and Engineering (STEM), Moser Hall, Room 2325 (Telephone: 330-941-2512)

- Williamson College of Business Administration (WCBA), Student Services Center (Telephone: 330-941-2376)

## What to Expect from Your Academic Advisor

Your academic advisor will:

- Assist you in exploring areas of study on your way to choosing your major
- Encourage and support you in establishing your goals and tracking your progress toward those goals
- Provide a safe setting for you to share your thoughts, goals, and concerns
- Listen to your questions and concerns and provide resources and referrals as needed in order to facilitate your college experience
- Understand and explain YSU policies and procedures, general education requirements, academic programs, and student services
- Maintain confidentiality

## What Your Academic Advisor Expects from You

In order to have a successful advising experience, you must:

- Accept responsibility for your decisions and actions
- Research your areas of interest including YSU programs and degree requirements
- Plan ahead (schedule appointments early and have the courtesy to cancel or reschedule as necessary)
- Come prepared for your advising appointment with your questions and concerns
- Follow up on referrals and inform your academic advisor of the outcome of the referrals
- Use all available campus services as necessary (Math Lab, Writing Assistance Center, Counseling Services, Center for Student Progress, Career Services)

## Registration

All YSU class registration takes place online through the *MyYSU* Portal. Registration day and time are determined by the student classification. Registration dates and appointment times for current students are published on the *MyYSU* Portal.

Registration must be concluded no later than the date published for the particular term. All significant dates for each term are published in the catalog and on the YSU website.

## Advisement

The Office of the Registrar provides instructions for advisement and registration prior to registration.

All students are urged to consult with advisors in their major area. Each department or college has a procedure for either assigning an advisor to a student or having the student select an advisor. Advisement is required for the following students:

1. Freshmen (with fewer than 30 hours of credit)
2. Post-Secondary Enrollment Option/Early Admission Options Program students
3. Any student not in good standing
4. First-semester transfer students
5. All former students returning to the University
6. Athletes

The responsibility for fulfilling all requirements rests ultimately upon the student; the advisors provide assistance in that process.

Students may use the online *Schedule of Classes* to determine the specific classes offered in a particular term. For information about future offerings or when a particular course will be offered again, consult the appropriate department.

## Change of Registration

Registered students may change their registration by accessing the registration functions through the MyYSU Portal. (Also see Reduction/Refund (p. 20) of Fees (p. 20) section).

Students should consult their advisors prior to changing their schedules. In general, each student who needs an advisor's approval for registration must also have an advisor's approval for add/drop (change of registration). However, advisors' approval is not required for:

- withdrawing from a course(s)
- changing sections of a course
- changing physical activity courses

A registered student may add an additional course through the change-of-registration procedure until the last day to add a class as published in the academic calendar.

Withdrawal from a course must be accomplished through the change-of-registration procedure. If a student withdraws from one or more courses during the full-refund period (or the end of the first week of the summer term), no entry will be made on the student's permanent record for the course(s) dropped.

Administrative change(s) of registration may occur if a student is improperly enrolled in any course or has registered for more hours than permitted.

Students who wish to completely withdraw from the University should consult the appropriate section in this catalog.

## Cancellation of Registration

A student's registration may be cancelled for any of the following reasons:

1. Academic suspension for the previous term
2. Disciplinary action against the student
3. Insufficient class enrollment
4. Failure to meet admission or prerequisite requirements
5. Failure to satisfy past-due financial obligations to the University
6. Conditional Admission dismissal

For more information check the Office of the Registrar (<http://cms.yсу.edu/administrative-offices/registrar/registrar-home>) website.

## Credit Hours/Class Standing/Majors

The *class hour* is a weekly 50-minute class period and is the basic unit of instruction. The term "semester hour" (s.h.) signifies one class hour a week carried for one 15-week semester (or the equivalent in a summer term or flexibly scheduled class). A *semester hour of credit* is the amount of credit given for one semester hour successfully completed. Each *semester hour of credit* represents an average of *three hours of study and instruction* every week through the term.

## Maximum/Minimum Credit-Hour Value

Registration is not permitted for less than the approved credit hour value of any course as listed in the *Undergraduate Catalog*. Students may not register for more than the approved credit-hour value of a course.

## Variable Credit Hours

Certain courses have variable credit hours. A student wishing to register for such a course may do so only after consulting with the department offering the course to determine the number of hours for which to register. The last day to add a class is also the last day to change credit hours.

## Student Load

The semester hours of credit a student carries per term depend on the degree sought and on the curriculum being followed. A minimum of 120 semester hours must be satisfactorily completed to earn a baccalaureate degree; a minimum of 60 semester hours for an associate degree. Students expecting to complete a bachelor's degree in four years or an associate degree in two years should average 16 credits per term. Students interested in taking 21 credit hours or more per term must seek approval from the dean of their college.

## Full-time Status

A full-time undergraduate student is one carrying 12 or more hours for credit per term.

## Academic Classification

All students working for any undergraduate degree conferred by this University are ranked in classes, by semester hours completed, as follows:

Freshman	0-29 semester hours of credit
Sophomore	30-59 semester hours of credit
Junior	60-89 semester hours of credit
Senior	90 or more semester hours of credit

For purposes of satisfying course prerequisites, the term "senior standing" may be defined by reference to the specified curricula of a given school or college, if it provides detailed programs leading to the attainment of a degree. A student who has completed a four-year degree and who continues undergraduate enrollment is classified as post-baccalaureate.

## Majors

### Declaring or Changing a Major

A student may enter the University as an undetermined major.

A major and minor (if required) must be declared by the time the student has completed 63 semester hours.

In order to change or declare a major, the student must fill out a form from the department of the desired major. The form will be forwarded to the Office of Records.

Students who need help selecting a major should contact an academic advisor, the academic department, or the Office of Career Services for assistance with academic and career planning.

### Additional Majors and Degrees

A student interested in pursuing more than one major at a time should contact the departments offering majors to be assigned an advisor for each program. Multiple majors or degrees may be awarded concurrently.

### Multiple Majors/single Degree

A degree – e.g. Bachelor of Science, Bachelor of Arts – may be awarded only once. However, more than one major for the degree may be posted on the transcript when the appropriate department chairpersons certify completion of the requirements. The student should indicate in each of the appropriate colleges each major completed when filing for graduation. When the student completes more than one major in a given degree, one diploma is awarded. A minimum of 30 semester hours or 50% of the credits counted towards a major,

whichever is less, must be specific to that major and not shared by any other major.

### Multiple Majors/Multiple Degrees

If a student wishes to complete the requirements for multiple majors that are awarded under different degrees, the student must fulfill all requirements for each major and each degree. The appropriate chairpersons and deans must then certify completion of the requirements for each major and degree. The student must file intent to graduate and graduation application forms for each major and each degree in the appropriate colleges. A minimum of 30 semester hours or 50% of the credits counted towards a major, whichever is less, must be specific to that major and not shared by any other major.

Students may not earn the Bachelor of General Studies concurrently with another bachelor's degree. Students who hold a bachelor's degree are not eligible for a Bachelor of General Studies degree.

Any student who has received a degree from another institution and desires a second degree from YSU must complete a minimum academic residency of 20 semester hours for an associate degree and 30 semester hours for a baccalaureate degree, meet all requirements for the second degree, and complete the requirements for a new major. Students coming from another university or from YSU with an already-completed bachelor's degree will not have to complete any additional general education requirements at YSU but will have to satisfy the residency requirements described above.

## Credit from Professional Schools

Students at YSU wishing to enter professional schools with the option of completing their baccalaureate degree in absentia may do so with the completion of at least 94 semester hours of coursework, which must include the following:

- All general University requirements
- Completion of major
- Completion of minor (if required)
- 54 s.h. of upper-division coursework (3700-4800-Level)

The University will accept the completion of not more than 30 semester hours from any professional school granting any of the degrees listed below and approved by the accrediting agency of that profession, provided that the student has been accepted for further study at the professional school. The student may thus secure the baccalaureate degree after three to three-and-a-half years in the University followed by approximately a year in the professional school. The relevant professional degrees are:

- Doctor of Dental Surgery or equivalent
- Doctor of Medicine
- Doctor of Osteopathy
- Doctor of Podiatry
- Doctor of Veterinary Medicine
- Doctor of Jurisprudence or equivalent
- Doctor of Ministry or equivalent
- Bachelor of Divinity or equivalent

The policy above does not apply to students admitted in the BS/MD Integrated Program of Youngstown State University and the Northeast Ohio Medical University (NEOMED). However, credit of up to 13 s.h. may be granted toward the completion of the BS degree to those students who have participated in the 6th year *Human Values in Medicine* Programs of NEOMED.

## Undergraduate Preparation for Post-Baccalaureate Degrees

Medical schools have specific requirements for pre-medical study, and many law, theological, technological, and graduate schools have curriculum requirements for those seeking admission. Anyone wishing to enter a

professional, technological, or graduate school of any kind should consult advisors in the appropriate undergraduate college of this University as early as possible. Such special needs can usually be met within the degree requirements of Youngstown State University, but the proper selection of courses may have to begin in the first year.

## Course Load Requirements for Enrolled Nonimmigrant International Students

In accordance with federal regulations, F-1 students may not be employed on campus for more than 20 hours per week while school is in session. Furthermore, F-1 students are required to "pursue a full course of study," which for undergraduate students is defined as a minimum of 12 credit hours each semester (9 credits for graduate students). In order to avoid being de-registered from courses and thus violating nonimmigrant status, it is essential that international students pay their YSU tuition and other fees, including health insurance (see below), in full at the beginning of each semester.

During international student orientation, results of any required placement tests in math or English language are coordinated with testing and academic areas to assist students who may need to further improve proficiencies for academic success.

The Center for International Studies and Programs can provide advice on maintaining nonimmigrant status, authorization for a reduced course load, and obtaining additional employment authorization for unforeseen economic hardship or practical training. For more information, visit the Center for International Studies and Programs (<https://cms.ysu.edu/administrative-offices/center-international-studies-and-programs/cisp-home>) website.

## International Student Health Insurance

Enrollment in YSU's student health insurance plan is mandatory for all international students (F and J status) and for their nonimmigrant dependents. Coverage must be maintained for the entire calendar year.

An exception to this requirement is granted only to:

- students who have comprehensive group health insurance coverage through a parent or spouse's U.S. employer OR
- students whose sponsorship by the U.S. government, the student's home government, or a U.S.-recognized international organization includes comprehensive health insurance

To request a waiver from enrollment in the YSU international student insurance plan, students must, *by the end of the first week of classes each semester*:

- Submit a completed YSU International Student Health Insurance Waiver Request Form to the Center for International Studies and Programs **with proof of insurance** (including confirmation of coverage dates and a description of covered expenses and exclusions) through a qualifying relative's employer or qualified sponsor.

## Athletic Eligibility

The Athletic Eligibility Committee is responsible for the athletic eligibility certification for Youngstown State University with respect to academic "standards of progress" for current student athletes and incoming students in compliance with (NCAA) National Collegiate Athletic Association's regulations.

## Courses

### Prerequisites

No student may receive credit towards graduation for a course that is a prerequisite for a more advanced course which the student has already successfully completed, unless an exception to this policy is recommended by the appropriate chair and approved in writing by the student's academic dean.

## Repetition of Courses

A student may repeat a course once, unless otherwise stipulated in the course description or unless an additional repetition is authorized by the student's academic dean. If the course is a prerequisite to another course, the repetition must be successfully completed before the other course is taken. Both the original course and the repeated course must be taken at YSU. Transfer, study abroad, and/or transient courses are not eligible to be used as a repetition. If the student has received credit for a more advanced course in the same subject, a repetition is treated merely as another course, along with the first, in calculating the point average, unless the student secures an approved repetition form for recalculation of point average from the dean of the college in which the student is enrolled. (See Recalculation of Point Average.) A course repeated, however, may be counted only once as credit toward a student's total academic hours for graduation.

The Repetition form and the Petition for a Late Withdrawal cannot be used for the same course. In other words, a Petition for a Late Withdrawal cannot be processed for any course that was repeated and a recalculation of point average processed and posted on the student's academic record.

Credit towards graduation will not be given for a course on the semester system if the student has credit for the equivalent course on the quarter system.

## Closed Classes

Departments set limits to the number of students that can be accommodated in each section. During the registration period or the period for adding courses, many classes become filled. These classes are called "closed," which means that no more students will be admitted to them. Only the chair of the department offering the course can admit a student to a closed class or reopen a closed class.

## Audited Courses

A student may audit any course. The student pays the full tuition, as well as any other applicable fee, for the course(s) audited. Audited courses are carried in a student's load only for fee purposes. A student receiving financial aid should confer with the Office of Financial Aid and Scholarships before electing to audit a course.

A student may not change registration from audit to credit status or from credit to audit status after the last day to add a class.

## Conference Courses

Conference work is available only in exceptional cases and if the academic advisor considers conference work essential. You must obtain the required approval(s) and complete the registration on-line.

Conference courses have the following restrictions:

1. Permission is limited to seniors with a 3.00 average. Exceptions must be approved by the dean of the college in which the student is enrolled.
2. The course must be given by a full-time faculty member.
3. A brief description of the plan of procedure must be given by the full-time faculty member.
4. Must have approval from the department concerned and the dean of the school in which the course is offered.

## Graduate Courses for Undergraduates

An undergraduate student who has senior standing and an unrecalculated grade-point average of at least 2.7 may enroll in 5800 or higher level graduate courses, provided such enrollment does not cause the total schedule for the term to exceed 15 semester hours. Before registering for courses, the student must have the approval of the student's advisor in the program where the credit will be applied, the course instructor, and the dean of the College of Graduate Studies. The credit earned may be used for graduate credit at YSU

only after the student is admitted to the College of Graduate Studies and the credit is accepted by the department in which the student continues graduate work. (Such coursework cannot count toward fulfillment of the requirements for a bachelor's degree.) The maximum amount of such credit that will be accepted at Youngstown State University is nine hours.

## Transient Student Authorization

Current YSU students desiring to attend another institution as transient students must complete and submit the Transient Student Authorization form, available from the dean of the college in which they are enrolled. Instructions are on the form. To be certain the transient class is applicable to the degree, the TSA form must be completed prior to taking the course. If the form is completed after the course is taken, applicability cannot be guaranteed.

To receive credit for approved coursework, the student must have received a grade of "C" or better and must attend Youngstown State University the semester following the completion of the transient term. It is the student's responsibility to have an official transcript sent from the other institution to the YSU Office of Admissions.

## Complete Withdrawal From The University

### Procedure

The student who wishes to withdraw from all courses in a particular term must access the registration system on the MyYSU Portal or come to the Office of the Registrar. **Any student receiving Title IV financial aid should seek advisement from the Office of Financial Aid prior to processing a complete withdrawal.** A complete withdrawal may be executed before classes or after the term starts. The student should consult the MyYSU Portal for deadlines.

## Eligibility for Future Registrations

1. A new applicant who withdraws from all courses prior to the first day of the term will not receive notice for future registrations unless the person requests that the Office of Admissions defer the application to a future term.
2. A former YSU student who withdraws from all courses prior to the first day of the term will not receive notice for future registrations unless the person requests that the Office of Records defer the application to a future term.
3. A current undergraduate student withdrawing on or after the first day of the term will receive notice of future registrations for one academic year.

## Honorable Withdrawal

On occasion, a student voluntarily withdrawing from the University may need a letter stating the conditions of her or his withdrawal.

If a statement of honorable withdrawal is needed, the dean of the appropriate college or other appropriate offices (i.e., University Discipline Officer) will furnish one, provided the student is of good character, has a satisfactory record of conduct, has no financial obligations to the University, and is withdrawing voluntarily for acceptable reasons; and provided that the student, if withdrawing during a term, follows the official procedure for a change of registration.

## Grading System

Faculty assign grades on the basis of achievement in the subject matter of the course and in accordance with accepted professional standards for that subject. The grade earned by a student thus represents the quality of work and is not based merely on competition within the class.

- The grade of **A** represents exceptional work in which the student shows that he or she has firmly grasped and achieved the objectives of the course.
- The grade of **B** indicates very good work and considerable grasp of the essentials of the course.
- The grade of **C** indicates good work and a usable grasp of the essentials of the course.
- The grade of **D** indicates a definite, but not necessarily coherent, knowledge of the course.
- The grade of **F** indicates that the student has not achieved even a minimum grasp of the essentials of the course. This grade can also result from failure to withdraw officially from a course (see Change of Registration (p. 32) and Refund of Fees Upon Withdrawal) (p. 20).

An incomplete grade of **I** may be given to a student who has been doing satisfactory work in a course but, for reasons beyond the control of the student and deemed justifiable by the instructor, had not completed all requirements for a course when grades were submitted. A letter grade may not be changed to an **I** (Incomplete) after the term has ended and grades have been recorded. A written explanation of the reason for the **I** must be forwarded by the instructor to the Office of Records. This explanation will be included in the student's permanent record, with copies to the student and department chairperson. For fall term courses, the final date to complete an **I** will be March 1 of the following term; for the spring term courses, September 1; for all summer term courses, October 1. With approval by the instructor and the dean of the college in which the course is taught, the completion date may be extended. Courses not completed by the appropriate date will be converted to an **F**.

Students should not register for the same course the subsequent term. Rather, the student should work individually with the instructor to fulfill the course requirements. The instructor will initiate a grade change upon completion of the course requirements. If no formal grade change occurs within the allotted time frame, the **I** automatically converts to an **F**. Any **I** that is still pending by graduation will be converted to an **F**.

If a student receives an **I** as a result of being summoned to active military duty, the student will have one academic year from the date when he or she is released from active duty to complete the course requirements and have the change of grade recorded. It is the student's responsibility to inform the registrar or associate director of records regarding the Incomplete grade.

Department chairs are granted authority to convert grades of **I** into final grades in cases where instructors may have severed connections with the University or have been otherwise unable to convert the grades.

A progress grade, **PR**, is given in certain approved courses to indicate that work is still in progress on a project that occupies more than one semester. This grade is changed to a final letter grade at the end of the term in which the work is completed.

The **PR** grade may also be given at the end of a term in courses specifically identified as competency-based<sup>1</sup> to indicate that the student needs more time to demonstrate a mastery of the subject matter. In such instances, the **PR** grade will be converted to a letter grade by the instructor no later than the end of the subsequent term, excluding the summer. A **PR** grade not changed by this time is automatically converted to an **F** grade.

**W** represents a withdrawal properly processed at any time from the end of the full-refund period through the last day to withdraw with a **W** (as published in the Academic Calendar for each semester). For courses involving foreign travel, the last day to drop a course with a **W** shall be the date at which the student first leaves the campus to begin the travel. Withdrawal after the designated date (or an improper withdrawal) is recorded as **F**. Withdrawal thereafter (or improperly done, at any time) is recorded as **F**. Petitions for late withdrawal must be submitted within one year from the time a grade in the course was earned. If the grade resulted from circumstances over which the

student had no control, the student may petition the appropriate dean for a late withdrawal.

A Petition for Late Withdrawal and the Repetition Form cannot be used for the same course. In other words, Petition for a Late Withdrawal cannot be processed for any course that was repeated and a recalculation of point average processed and posted on the student's academic record.

When withdrawals change a student's status (full-time to part-time), the student immediately forfeits any privileges contingent upon full-time status, and all interested parties which legally require it will be notified.

The distribution of achievement levels, and therefore of grades, in a large unselected group of students generally follows the normal frequency curve, in which 5% to 10% are A's, 20% to 25% are B's, 40% C's, 20% to 25% D's, and 5% to 10% F's. However, since it is likely that substantial variation from the normal will occur in individual classes, the instructor does not use the 'curve' as a standard to be imposed, but only as a model against which the instructor may compare each particular class, using his or her own judgment on the basis of professional standards.

Instructors may use plus and minus modifications of the grades, but they are not recorded or used in calculating the point average.

<sup>1</sup> The definition of competency-based instruction is to be provided by the instructor responsible for the course. Competency-based courses are so designated in the *Schedule of Classes*.

## The Point Average and Scholastic Standing

The student's scholastic standing is indicated by the quality point average (also called "grade point average," "grade average," or "point average").

For determining this average, every grade has a quality point value for each semester hour it represents, as follows:

- **A**, four quality points
- **B**, three points
- **C**, two points
- **D**, one point
- **F**, zero points

For example, an **A** in a three-hour course is worth 12 quality points; a **D** in a four-hour course, four points; and an **F** in any course, zero points. To find the point average, the total number of quality points earned is divided by the total GPA hours. Thus, a student who earns 16 hours and 40 quality points has a point index of 2.50. Only grades of A, B, C, D, and F are included in the calculation of the point average.

## Grading Options

### Traditional Grade (A,B,C)/No Credit

To receive credit for courses offered on a traditional grade/no credit basis, a student must earn a grade of **C** or better. If the student fails to do so, an **NC** is entered on his or her transcript.

An **NC** does not fulfill the requirements for satisfactory completion of the course; it does not affect the grade point average.

### Audit (AU)

The **AU** grade indicates a student has registered for a course on an audit basis and has met the audit attendance requirement established by the instructor. Failure to meet the attendance requirement results in a grade of **AU (W)**.

Students must indicate their election of the audit grading option at the time of registration or within the time limits established for adding a class. The audit

option will not be changed to the standard grading option beyond the last day to add a class.

## Credit/No-Credit (CR/NC)

Credit/no-credit grades are given in some specific courses as approved by the Academic Senate. Such courses are identified in the course descriptions.

## Credit/No-Credit (CR/NC) (Student Option)

To encourage students to experiment with courses outside their major field of concentration, a credit/no-credit policy exists within the following guidelines.

- Youngstown State University students who have completed at least 15 semester hours of credit and have a grade point average of 2.00 or better, or transfer students admitted unconditionally who have at least 30 semester hours of transfer credit, may elect to take a course for credit/no-credit.
- The grade recorded for the student is not a letter grade, but either **CR** (credit) or **NC** (no-credit). If a student who has opted for CR/NC earns an A, B, or C in the class, the grade officially assigned is CR; otherwise it is NC. In either case, the grade point average is not affected.
- This option may be elected for a maximum of twelve (12) semester hours for the baccalaureate degree or six (6) semester hours for the associate degree. Courses offered only under the **CR/NC** option (by department designation) *do not* count as a student-elected credit/no credit class. Students are restricted to taking one CR/NC course per fall and spring semester and one CR/NC course per non-overlapping summer term.
- **Courses taken under the CR/NC option may not be counted toward a student's major or minor.** Students should confer with their advisors prior to electing the CR/NC option.
- Students must indicate their election of the CR/NC option at the time of registration or within the time limits established for adding classes. **The CR/NC option will not be changed to the standard grading option beyond the last day to add a class.**

## Changing of Grading Options

You may change your grading option only through the last day to add a class.

## Excluding Older Grades (Statute of Limitations)

An undergraduate student *currently enrolled* may petition the dean of his or her college to exclude from the calculation of the grade point average grades earned five or more calendar years before. If the petition is approved, all grades (not merely grades of D and F) earned during the specified quarter or semester and all previous grades (not merely grades of D and F) will then be removed from the calculation. However, all grades remain on the permanent record.

Excluded course credit will not count toward the total hours required for graduation. However, courses passed may fulfill basic curriculum requirements and may satisfy prerequisites for higher courses where applicable. Courses excluded from the calculation may be taken again and repeated once without infringing upon repeat privileges specified in catalog course descriptions. Courses excluded are not subject to credit by examination. *A student whose petition has been approved is ineligible for graduation honors.* Only one petition from each student may be approved. Students **may not** petition to exclude older grades after a degree has been conferred.

## Grade Reports

Final grades are available through the MyYSU Portal.

## Grade Changes

A request for a grade change must be made to the course instructor. Applications for grade changes must be signed by the instructor, department chair, and dean. All grade changes must be submitted by the dean or the instructor to the Office of Records; they will not be accepted from the student.

**After a degree has been conferred, in no case may a grade change be made for a course or courses taken while pursuing that degree.**

A student's academic record contains a complete history of his or her academic performance while earning a degree. Therefore, the academic record of a student who graduates may not be revised using a *Grade Change Form*, *Repetition Form*, *Petition for a Late Withdrawal*, or *Statute of Limitations*.

In the case of a student who has completed an associate degree, the above policy may, on occasion, be waived, but only if the student is currently pursuing a baccalaureate degree. However, changes cannot be made in a student's record which would affect the status of the awarded associate degree. Waivers must be approved by the appropriate dean.

## Credit by Examination-Departmental

A currently enrolled student who can demonstrate ability and knowledge in a particular subject area may establish credit in certain courses without enrolling in them, by taking a special examination (through the appropriate department). An examination fee is assessed for each examination. The only grade possible is "CRX", and there is no effect on the student's grade point average. For the examination fee, see "Fees and Expenses". Information on courses for which credit by examination is possible may be obtained from the student's academic dean or the Office of Testing (<http://cms.yosu.edu/administrative-offices/testing-center/testing-center>). Registration for departmental tests is done through the specific department.

## Recalculation of Point Average

A current undergraduate student may wish to improve his or her cumulative point average by repeating a course in which a grade of 'D' or 'F' was earned. In order to recalculate the cumulative point average, the repetition must be consistent with the policy on repetition of courses, and the student must initiate the recalculation process with the approval of his or her advisor (or the dean, if it is a second repetition). A recalculation will be made for only the immediately preceding grade for the course, regardless of the number of repeats, and may be made only once for any course. Although courses are not deleted from the permanent record, the record is adjusted to reflect the inclusion of only the last grade in the computation of the point average. The hours credited toward degree hours completed are those earned with the last grade.

Only undergraduate students currently attending the University may request this recalculation privilege, and only courses taken at Youngstown State University may be used in recalculating the cumulative point average. **A post-baccalaureate student is not eligible to petition for a recalculation unless both the course and the repetition are completed subsequent to the conferring of the degree.** A student holding the associate degree may petition after receiving the associate degree only if currently pursuing a baccalaureate degree. **All YSU grades, including those deducted from accumulative totals as a result of an approved Repetition Form, will be counted in determining honors for graduation.**

## Proficiency in English and Grading

The student's ability to express himself or herself in English is the concern not of the Department of English alone, but of every member of the University faculty. Inadequate competence in English is to be regarded as a reason for lowering a student's grade in any course in the University.

## Absence from Classes and Examinations

The problem of excessive class absence concerns instructor and student, and consequently requires their mutual effort. All students must realize that for their own welfare they are expected to attend all class meetings of courses in which they are enrolled.

The instructor, however, has the prerogative of determining the relationship between class attendance, achievement, and course grades, and the

responsibility for communicating the relationship to the students at the beginning of each term.

A student must have the instructor's consent in order to take any examination at a time other than that scheduled.

The faculty believes that classroom activities are essential to learning. The student is responsible for knowing and meeting all course requirements, including tests, assignments, and class participation, as indicated by the course instructor.

The responsibility for work missed during absence rests with the student. The instructor has no obligation to give make-up graded coursework or to review other class work missed by a student as a result of absence except under those specific conditions cited below:

- Participation in University-sponsored activities. University-sponsored activities are those that are scheduled by academic, student affairs, and athletic units. They include, but are not limited to: intercollegiate athletic competitions activities approved by academic units, including artistic performances; R.O.T.C. functions; academic field trips; professional conferences; and special events connected with coursework.
- Government-required activities, such as military assignments, jury duty, or court appearances.
- Religious observances that prevent the student from attending class.
- Death of an immediate family member, including father, mother, sister, brother, spouse, children, step-children, step-parent, parent-in-laws, sons-in-law, daughters-in-law, brothers-in-law, sisters-in-law, grandparents, foster parents, foster children, legal guardians, any person who stands in the place of a parent (*loco parentis*), or a domestic partner.
- Documented personal illness.

## Procedure

The following guidelines describe procedures for students, sponsors of appropriate activities, and instructors.

Students shall:

- Provide all scheduled activity dates to their instructors at the start of the semester. For unforeseen absences, notify the instructor as early as possible in the semester of the upcoming activity.
- In the case of a University-sponsored event, provide the sponsor of the activity with a list of classes that conflict with the proposed activity.
- In the event the absence was due to illness or injury, verification from a health center or medical professional should be presented to the instructor. If the illness was not severe enough to warrant a medical visit, instructors should use their best judgment in determining if it should be excused.
- Be responsible for all material covered in class during their absence. Students are responsible for completing any work resulting from their absence. In no case is an excuse from class to be interpreted as a release from class responsibility.
- Out of courtesy, remind the instructor of the absence approximately one week prior to the absence.

Sponsors of University-sponsored activities shall:

- Provide each participating student with a signed letter for each of the student's affected classes, to be given to their instructors, including time, date, and location of the event. This letter should be provided at the beginning of the semester, or as early as possible in the semester.
- Address any concerns a faculty member might have related to the scheduled activity.

Instructors shall:

- Inform the student about graded coursework that will be or was missed.
- Determine an alternative due date for graded coursework missed.

## Grade Requirements

Four categories of academic standing are established: Good Standing, Warning, Probation, and Suspension. These categories are intended to signify a student's progress toward graduation or to provide an opportunity for making improvements and achieving academic success.

"Warning" and "Probation" indicate that grade standards consistent with graduation requirements are not being met. An advisor's approval of course load is required prior to continuing studies at the University.

"Suspension" means that a student is separated from the University for a period of time.

Academic standing is based upon the total earned hours (TEH) completed, including accepted transfer hours. YSU requires all students to have a cumulative GPA of 2.00 to be in good standing.

A student whose point average falls below the specified average for the number of credit hours achieved will be given a warning.

Students on academic warning are required to establish an action plan for academic success and have a letter of support from a supervisor as per the existing student employment policy.

A student who has been on warning and who fails to bring the average up to the minimum by the end of the following term will be placed on probation for the next term. A probationary student who has failed to bring the average up to the minimum by the end of the probationary term will be suspended; however, a student who makes substantial improvement during a probationary term and averages at least 2.00 for that term will be continued on probation even though the student's cumulative average does not reach the desirable minimum.

A student on warning is permitted to participate in University activities.

A second suspension will have a duration of at least one full year before reinstatement on probation. Students should not expect to be reinstated after two suspensions unless the dean agrees that extraordinary conditions or circumstances have occurred. Additional suspensions will have durations of at least two years.

**Reinstatement** after any suspension is determined by the dean (or designee) of the college from which the student was suspended, or, if the student wishes to change colleges, by the dean of the new college. Exceptions to the suspension policy may be granted by the dean.

Transfer students admitted in **good standing** or on **probation** must meet those point-average requirements indicated for their total hours, including transfer hours accepted by Youngstown State University.

## Transcripts

The official transcript is a record of all coursework taken at Youngstown State University.

Current and former students, as well as alumni, can request an official transcript for academic work completed at Youngstown State University. Please be aware that only the student may request an official transcript. An official transcript will only verify YSU courses completed. Transcripts may be ordered online at the YSU website (<http://cms.ysu.edu/administrative-offices/registrar/transcript-request>) or in person.

Students are advised that most graduate and professional schools and many employers accept transcripts only if sent directly by the University. Photo identification is required when ordering the transcript in person. Transcripts

will be released only for those students who do not currently have a financial obligation to the University.

Disciplinary action is not shown on a student's academic record.

## Academic Honors

### The Dean's List

The Dean's List (for each term except summer) includes those full-time undergraduate students who have earned at least a 3.4 average for not less than 12 semester hours of credit in the semester just ended.

Included in the listing for the spring term are those part-time students who have earned at least a 3.4 average for the fall and spring terms, and who have accumulated a minimum of 12 hours of credit.

### The President's List

The President's List (for each term except summer) includes full-time undergraduate students who have earned a 4.0 average for not less than 12 semester hours of credit in the semester just ended.

Spring term President's List recipients follow the same rules as Dean's List recipients.

### Class Honors

To be eligible for undergraduate class honors:

- a freshman must have completed at least 12 semester hours at YSU
- a sophomore must have completed at least 24 semester hours at YSU
- a junior must have completed at least 36 semester hours at YSU
- a senior must have completed at least 48 semester hours at YSU

Honors are based on the accumulative point average at YSU only; no transfer work is included. Both full-time and part-time students are eligible, provided they:

1. have a minimum cumulative point average of 3.00;
2. have earned at least 12 credits in traditionally graded courses taken during the three semesters (including summer) preceding the term in which honors are awarded; and
3. are enrolled during the current term.

Non-matriculated, post-secondary enrollment option students, transient students, post-graduate transfer students, and YSU students who have received a baccalaureate degree prior to spring semester in the academic year in which the honors convocation is held are not eligible. A student can receive class honors only once as a member of a particular class (freshman, sophomore, etc.). The number of honor recipients approximates the top one percent of the total fall enrollment of every class in each undergraduate unit of the University, but it may slightly exceed this figure because of ties.

### Honors Convocation

The Honors Convocation recognizes those students who have distinguished themselves academically. Some of the awards listed under Awards and Prizes (see Student Activities section) are announced and presented on this occasion.

### Graduation Honors

Students graduating with a baccalaureate degree who rank high scholastically are awarded special honors at the commencement exercise, as follows:

- Those who attain a quality point average of 3.8 or higher are granted their degrees *summa cum laude*.

- Those who attain a quality point average of less than 3.8 but not less than 3.6 are granted their degrees *magna cum laude*.
- Those who attain a quality point average of less than 3.6 but not less than 3.4 are granted their degrees *cum laude*.

Students graduating with any associate degree who rank high scholastically are awarded special honors at the commencement exercise, as follows:

- Those who attain a quality point average of 3.7 or higher are granted their degrees With High Honors.
- Those who attain a quality point average of less than 3.7 but not less than 3.4 are granted their degrees With Honors.
- A student who has processed an approved *Statute of Limitations* is ineligible for graduation honors. *All YSU grades* (including those deducted from accumulative totals as a result of an approved Repetition Form) *will be counted in determining honors for graduation*.
- Transfer students who are baccalaureate degree candidates must have at least 60 semester hours of credit at Youngstown State University, or those who are associate degree candidates must have at least 40 semester hours of credit at Youngstown State University to be eligible for graduation honors. In addition, no transfer credit is included in the calculation of the point average.

## Academic Misconduct

### Academic Dishonesty

#### What is Academic Honesty?

Academic honesty is essential to the educational process and serves to protect the integrity of the University community. Therefore, all members of the University community have a responsibility of maintaining high standards of honesty and ethical practice. Students should consult with a faculty member if they are not sure what may constitute academic dishonesty. Students suspected of academic dishonesty may be charged with a violation of University conduct regulations under Article III. 1. of the *Student Code of Conduct*.

Although instructors are responsible for taking all reasonable precautions to prevent cheating and plagiarizing, students share a joint responsibility and should report any act of academic dishonesty to the instructor.

After the faculty member has gathered evidence of a possible violation, the faculty member will notify the student within 48 hours in writing, via university email, of the allegations and invite the student to participate in an academic integrity conference. The faculty member and student may hold the conference without written notification. This academic integrity conference shall occur within five university working days of the written notification to the student.

If a faculty member concludes the student was responsible, the faculty member may impose a sanction which may include, but is not limited to, one of the following:

- warn the student
- lower the grade on the exam, paper, or assignment related to the incident
- lower the student's final grade for the course
- request additional action from the Student Academic Grievance Subcommittee, such as removal from a course, University suspension, or expulsion

A complete description of the process is detailed in the *Student Code of Conduct* (Article V. Academic Dishonesty). However, it should be noted that a student can:

- agree to the charge of academic dishonesty and sign the Academic Integrity Form, acknowledging the incident and accepting the sanction



- agree to the charge of academic dishonesty but disagree with the sanction and request further review, thereby initiating further review by the Student Academic Grievance Subcommittee
- disagree with the charge of academic dishonesty and refuse to sign the Academic Integrity Form, thereby initiating further review by the Student Academic Grievance Subcommittee

Regardless of whether the Academic Integrity Form is signed, in situations where suspension or expulsion from the University is recommended by the faculty member, the case will immediately be sent to the Student Conduct Office and forwarded to the Judicial Chair of the Student Academic Grievance Subcommittee to initiate a panel hearing. A representative from the Student Conduct Office must be present at all University suspension and expulsion hearings to serve in an advisory capacity.

In instances in which the student already has one prior academic dishonesty offense, any additional offenses will constitute a violation of the *Student Code of Conduct* and will require the student to undergo a Student Code of Conduct Hearing through the Office of Student Conduct.

The *Student Code of Conduct* (<https://cms.ysu.edu/administrative-offices/student-conduct/student-code-conduct>) is available online. A printed copy can be obtained in the Office of Student Conduct.

## Academic Grievances

### Academic Grievances

The Student Academic Grievance Procedure provides students with a formal channel through which complaints concerning academic matters may be heard. A student must attempt to resolve the complaint by first discussing the issue with the faculty member. If the complaint is not resolved at that level, the student should direct his or her complaint to the department chair and, if the complaint is still not resolved, then to the dean of the college.

Complaints not resolved following a discussion with the dean will be considered by an associate provost or designee, who will serve as Judicial Chair. Upon his or her review, the Judicial Chair determines whether the complaint is grievable. If the complaint is grievable, it is presented to the Student Academic Grievance Subcommittee. Per the YSU-OEA Agreement, Article 20, academic matters that may be grieved are the following:

- Material deviation from the grading scale or weight distribution indicated on the course syllabus by the faculty member, to the detriment of the individual student or the entire class.
- Material deviation of faculty contractual obligations as specified in the article on Teaching Rights and Responsibilities in the Faculty Collective Bargaining Agreement, to the detriment of the individual student or the entire class.

Other areas of contention between a student and a faculty member may not be grieved under this section. The student should contact the department chair of the faculty member's department or the dean of the college housing the faculty member's department for further advisement in these situations.

Students wishing to file a grievance should contact the administrative assistant in the Office of the Provost for an appropriate referral. Further information may be found in the Academic Grievance Guide, which is available online at the Student Success (<http://cms.ysu.edu/administrative-offices/student-success/division-student-success>) homepage. A paper copy may be obtained in the Division of Student Success.

An electronic copy of the Student Academic Grievance Form (<https://www.dropbox.com/s/bbg1w32fdqui29g/Academic%20Grievance%20Form.pdf?dl=0>) is available. An electronic copy of the Student Academic Grievance Procedure (<https://www.dropbox.com/s/5zeuyqxckgy281w/Grievance%20Panel%20Procedure%20072917.pdf?dl=0>) is also available.

## Student Complaints

Youngstown State University is committed to the continuous improvement of the services it provides to its students. Students who have complaints regarding the fairness or quality of service they have received from the university are encouraged to share their concerns pursuant to this policy so that the university may address these concerns in a timely and professional manner.

This policy applies to all university divisions, colleges, departments, and units. This policy does not apply to student complaints regarding academic (grading) grievances, disability accommodations, harassment or discrimination, university admission decisions, or complaints or disciplinary action pursuant to the *YSU Student Code of Conduct*.

A student complaint is defined as a written and/or clearly documented verbal statement alleging improper, unfair, or arbitrary action relating to the university's delivery of academic, administrative, and support services. A student complaint must be based upon a claimed violation of university policy, regulation, or established practice.

There are two kinds of student complaints:

- **Academically Related Complaints:** A student complaint related to the services and responsibilities provided by the departments within academic affairs, including but not limited to academic colleges, academic departments, student success, distance education, library, mathematics assistance center, reading and study skills, and writing center.
- **Non-Academically Related Complaints:** A student complaint related to the services and responsibilities provided by the departments and divisions of budget and finance, enrollment management and planning, equal opportunity and diversity, facilities, human resources, multicultural affairs, and student experience.

## Informal Resolution

Students are encouraged, but are not required, to resolve complaints on an informal basis. In seeking informal resolution, a student should speak directly with the staff, faculty, or administrator with whom the student has an issue. This process allows the YSU official to have an opportunity to hear the student's concerns and work with the student to resolve the issue in a mutually constructive manner. If the student's concern is not resolved to the student's satisfaction, the student may utilize the formal complaint process.

## Formal Resolution

A student complaint page and submission form is available on the university website for students to submit their complaints in writing to the university. The university will respond to the student within ten business days of the alleged issue.

For more information, consult YSU's Student Complaint Process Policy.

## Student Records

### Student Name Changes

Students who need to have their official name changed can complete the Student Change of Information form (<http://cms.ysu.edu/administrative-offices/student-one-stop/frequently-requested-forms>). Legal documentation (marriage license, passport, divorce document, court order, naturalization papers) must accompany the form. This documentation may also be presented to the Office of the Registrar.

## Notification of Rights under FERPA

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. *The right to inspect and review the student's education records within 45 days of the day the University receives a request for access.*

A student should submit to the registrar, dean, head of the academic department, or other appropriate official, a written request that identifies the record(s) he/she wishes to inspect. The University official will make arrangements for access and notify the student of the time when and the place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, such official shall advise the student of the correct official to whom the request should be addressed.

2. *The right to request the amendment of the student's education records that the student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights.*

A student should write the University official responsible for the record in question, clearly identifying the part of the record he/she wants changed, and specifying why it is inaccurate, misleading, or otherwise in violation of his/her privacy rights.

If the University decides not to amend the record as requested by the student, the University will notify the student of the decision in writing and advise the student of his/her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. *The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.*

Personally identifiable information is information that, if disclosed, would make a student's identity easily traceable, e.g., name, address or social security number. An exception which permits disclosure without consent is disclosure to University officials with legitimate educational interests.

A University official is a person employed by Youngstown State University in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student or volunteer serving on an official committee, or assisting a University official in performing his/her tasks.

A University official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility for Youngstown State University.

Also, the requirement for consent does not apply to the following:

- Requests by officials of another institution where the student seeks to enroll or is already enrolled for purposes related to enrollment or transfer.
- Requests in compliance with a lawful subpoena or judicial order.
- Requests in connection with a student's application for or receipt of financial aid.
- Requests by state authorities and agencies specifically exempted from the prior consent requirements by the Act, conducting studies on behalf of the University, if such studies do not permit the personal identification of students to any persons other than to representatives of such organizations and if the personal identification data is destroyed when no longer needed.
- Information submitted to accrediting organizations.
- Requests by parents of a dependent student, when claimed by a parent on one's Federal Income Tax Return.
- In the case of a health or safety emergency, the University may release information from education records to appropriate persons in connection with an emergency, if the knowledge of such information is necessary to protect the health or safety of a student or other persons.
- To authorized federal officials who have need to audit and evaluate federally-supported programs.
- The results of any disciplinary proceeding conducted by the University against an alleged perpetrator of a crime of violence or non-forcible sex offense to the alleged victim of that crime.

- Disclosure to a parent of an underage student in violation of University policy governing the use or possession of alcohol or drugs.

4. *The right to prevent the University from disclosing any or all of the information about the student the University has designated as directory information.* FERPA permits the disclosure of directory information without the consent of the student. Directory information is information contained in a student education record which would not generally be considered harmful or an invasion of privacy if disclosed. Youngstown State University has designated the following types of information as directory information:

- name;
  - address (local, home, and email);
  - telephone listing (campus and home);
  - enrollment status (e.g., full-time, part-time, withdrawn);
  - field of study (including college of enrollment, major and campus);
  - participation in officially recognized activities and sports;
  - weight and height of members of athletic teams;
  - dates of attendance and graduation;
  - degrees, honors, and awards received;
  - previous educational institutions or agencies attended; and
  - photographic, video or electronic images of student.
- Any student wishing to exercise this right must inform the Registrar in writing of the information not to be designated as directory information with respect to that student. If no such written notification is submitted, the University will assume that a student does not object to the release of the directory information. A student's request for such non-disclosure will remain in effect until the student notifies, in writing, the Registrar otherwise.

5. *The right to file a complaint with the U.S. Department of Education concerning alleged failures by Youngstown State University to comply with the requirements of FERPA.*

The name and address of the office that administers FERPA is:

*Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, S.W.  
Washington, D.C. 20202-5920*

Any questions about this notification should be directed to the Registrar (<http://cms.ysu.edu/administrative-offices/registrar/registrar-home>).

## Graduation Requirements

### Catalog of Entry

The *Undergraduate Catalog* in effect when a student first enrolls at the university or any one subsequent catalog will be the guide to graduation requirements, provided the student is in continuous attendance and does not change majors.

When a student changes majors, the guide to graduation requirements will be the catalog in effect at the time of change or any one subsequent catalog. Exceptions to this rule include the requirements for the minor and general education requirements. Unless the minor is specified by the new major, a student who has been in continuous enrollment and changes majors can fulfill the requirements for a minor by using the criteria in effect in either the catalog of entry or the catalog in effect at the time of the change in major. See the section on General Education Requirements for the relevant policy on general education.

Readmitted students will use the catalog in effect at their last readmission or any one subsequent catalog as the guide to graduation requirements. Any exceptions to requirements must be approved by the student's department chair and/or college dean. The University reserves the right to change course offerings and academic requirements.

## Candidacy for a Degree

To be eligible for candidacy for any degree, students must fulfill the following three requirements:

### Application

You must file a Request for Graduation Evaluation form with the dean of your college after the completion of 40 semester hours for the associate and 100 semester hours for the baccalaureate degree.

An Application for Graduation form must be filed by the deadline indicated in the University Academic Calendar. The application is available on the student's YSU Portal.

If the student does not graduate for the term which the application has been filed, the student must reapply. The student must fulfill the University-wide, college, and departmental requirements as well as the minimum credit hours.

### Residency

The last 20 semester hours leading to an associate degree and the last 30 semester hours leading to a baccalaureate degree must be completed at Youngstown State University. (In the pre-forestry, pre-law, and pre-medical curricula, however, which allow the student to earn final credit hours in absentia, the last 30 semester hours prior to the period of absence must be spent at Youngstown State University.) A minimum of 16 semester hours in the concentration area for the associate degree, and a minimum of 16 hours of credits in the major in the baccalaureate degree, must be earned in residence. A minimum of 21 semester hours of upper-division credit for the baccalaureate degree must be earned in residence. Exceptions must be approved by the Office of the Provost. Additional requirements may be specified by individual colleges.

### Grades

The cumulative point average must be at least 2.00 (see The Point Average and Scholastic Standing) at the time candidacy is approved and at the time the degree is granted.

Additional requirements for the associate or baccalaureate degree appear below.

## Baccalaureate Degree

A *minimum* of 120 semester hours must be successfully completed to earn a bachelor's degree. In addition to requirements stated under Candidacy for a Degree, the following requirements must also be fulfilled for a baccalaureate degree:

### Course Levels

At least 60 semester hours must be completed in courses numbered 2600 or higher; at least 48 of these 60 hours must be in courses numbered 3700 or higher.

### Majors

Each student must complete a major. A department major consists of at least 30 semester hours of an approved set of courses. A combined major, in which courses are given by more than one department, consists of at least 48 semester hours. All grades in the major must be "C" or better.

Each department determines the course requirements for its own major or majors. Responsibility for certifying that a student has completed a major rests with the chairperson of the major department. The student may be required to do more than the minimum stated in the preceding paragraph.

As soon as a student has decided on a major, he or she should consult with the department chair of the major department. A major must be declared by the time a student has achieved junior standing. Early consultation with the department chair is strongly recommended, since in some departments the

student must begin coursework related to the major during the freshman year or risk a delay in graduation.

### Minors

A minor is an intellectual venture that broadens and deepens the student's intellectual growth. An intellectual framework and coherence are evident in the scope and sequence of the minor course of study. A minor is intended to contrast with or deepen the major or General Education and is to be taken in a discipline other than that of the major. In approved interdisciplinary minors, courses from the student's major discipline can be counted in the minor provided that the same courses are not counted toward the major. Each student must complete a minor, unless the student has a combined major or is enrolled in a professional or technical curriculum that does not require a delineated minor. Check with an academic advisor for specific information.

A minor consists of at least 18 hours of an approved set of courses. All grades in the minor must be "C" or better. Courses taken under the Credit/No Credit option may not be counted toward the minor. Upper-division courses must comprise at least 1/3 of the credit hours in the minor. An individualized minor may be developed and approved through the Individualized Curriculum Process (ICP). Transfer students may also use the ICP process for approval of a minor course of study. An official minor is designated on the student's transcript at the time the degree is awarded.

Each department develops the specific pattern or sequence of courses for any minor(s) it offers. However, the department in which the student receives the major is responsible for certifying that a student has completed a minor. Certification will be guided by the description of minors published in the *Undergraduate Bulletin*. For a list of minors and their requirements see Minors List.

## Certificates

A certificate identifies a concentration of study in an academic area. There are a limited number of academic areas where certificates are available, and students should consult the program descriptions for this information. All grades for the certificate must be "C" or better.

## Associate Degree

A *minimum* of 60 semester hours must be successfully completed in order to earn an associate degree. Students in associate degree programs must take a minimum of six general education courses, including Writing I and Writing II, and four additional courses selected from at least three of the following areas: mathematics, speech, natural science, arts and humanities, social science, or social and personal awareness. No more than one course counted toward the requirement may be in mathematics. Students should check with their departments to see if certain general education courses are mandated by their program.

## Commencement

Graduation ceremonies take place twice a year. Fall commencement is held in December and spring commencement is held in May. Students who graduate summer are invited to participate in either spring or fall commencement activities.

## First-Year Experience

### The Office of First-Year Experience

The First-Year Experience program at Youngstown State University is designed to assist incoming students during their transition from high school to college, as well as students who may be transferring from a different university.

By discussing topics such as Sexual Violence / Alcohol Awareness, Career Planning, Financial Literacy, and the Common Intellectual Experience as well

as participating in at least four campus activities, first-year students will begin to feel comfortable on campus and connect with the university.

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## Director of First-Year Experience

Dr. Karen Becker kabecker@ysu.edu 330-941-3544 3046 Jones Hall  
Youngstown State University

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## Learning Goals and Outcomes:

### Goal #1:

*Students will participate in a culture of community.*

#### Outcomes:

1. Students will identify and participate in student organizations, academic support services, and co-curricular activities that fit their interests and goals
2. Students will establish working relationships with faculty, advisors, and student support services, including an understanding of The Student Code of Conduct and Student Handbook
3. Students will evaluate issues of living in a diverse society
4. Students will engage in and reflect on a common, University-wide experience

### Goal #2

*Students will learn skills that promote academic and professional growth*

#### Outcomes:

1. Students will conduct an exploration and development of their academic interests and career pathways
2. Students will practice skills needed to manage their financial resources and situation
3. Students will practice skills needed to improve written communication and develop critical thinking

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## The Common Intellectual Experience: PenguinThink

The goal of PenguinThink is to involve incoming students with the campus and community through a mutual investigation of a common topic or theme which includes interdisciplinary collaboration and conference-style presentations for incoming students and also provides opportunity for colleges and programs to collaborate and share ideas with students across campus.

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## Career Planning

As set out by the General Education committee, students will undergo a career assessment and review the outcomes. All incoming students must complete a Career Planning module per Ohio Department of Higher Education (ODHE) requirements. Career Services or college-specific career advisers must be involved in the process.

The objectives of this module are to:

- Identify students' interests, personality, and values
- Recognize self-awareness
- Explore career fields
- Identify in-demand careers
- Develop self-reflection skills

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## Financial Literacy: Transit

First-Year Experience (FYE) students will complete an online Financial Literacy component called Transit. Students will receive an email from the company with directions to start the online program.

The goals of Transit are to produce students who will be:

- less likely to default on their student loans
- less likely to draw down more money than needed on their current student loans
- less likely to overspend or spend beyond their budget
- more likely to pay their bills on time
- more likely to check their credit score
- more likely to know and understand the terms and features of their loans, credit cards and financial account
- more likely to set a savings goal

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## Sexual Violence/ Alcohol Awareness: Think About It

The Campus SaVE Act requires that colleges and universities provide sexual assault prevention and bystander intervention training.

The objectives of this module are to:

- Form healthy relationships
- Prevent sexual violence
- Understand "hooking up" and sex in college

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## Campus Activities

It is required that FYE students complete at least four campus activities, with at least one of the activities being outside of the specific college. This requirement varies by college, however.

Some examples of events students can attend are:

- Sporting events
- Plays and concerts
- Student organizations
- Internship Fairs
- Volunteer opportunities
- Other events put on by different departments and organizations on campus

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## General Education Requirements

### Catalog of Entry

The *Undergraduate Academic Catalog* in effect when a student first enrolls at the university or any one subsequent catalog will be the guide to General Education Requirements.

### Goals

The general education program at YSU is designed to help students achieve the following seven goals:

- Students will participate in a culture of community.
- Students will learn skills that will promote academic and professional growth.

- Students will demonstrate the ability to write and speak effectively, reason quantitatively, and think critically so they are prepared to perform appropriately in their professions upon graduation. These skills will be applied in the major and culminate in the successful completion of a senior capstone project.
- Students will demonstrate understanding of the basic facts, principles, theories, and methods of science. Students will demonstrate the interdependence of science and technology and the influence of science and technology on society.
- Students will interpret significant writings and works of art, with a focus on aesthetics, historical responses, and the nature of the human condition.
- Students will demonstrate understanding of the development, diversity, and complexity of human behavior, institutions, and culture.
- Students will demonstrate understanding in any of the following critical areas of contemporary life: Domestic Diversity, International Perspectives, Sustainability, and Well-being.

## Learning Outcomes

To assist students in achieving the goals above, the courses included in the General Education model incorporate some combination of the learning outcomes. The outcomes as they relate to the goals for the various types of General Education courses are listed below:

### First-Year Experience Learning Outcomes:

#### **GOAL: Students will participate in a culture of community**

- Students will identify and participate in student organizations and co-curricular activities that fit their interests and goals
- Students will establish working relationships with faculty, advisors, and student support services
- Students will evaluate issues of living in a diverse society
- Students will engage in and reflect on a common, University-wide experience

#### **Goal: Students will learn skills that will promote academic and professional growth**

- Students will conduct an exploration and development of their academic interests and career pathways
- Students will practice skills needed to manage their financial resources and situation
- Students will practice skills need to improve written communication and develop critical thinking

### Common Intellectual Experience -- PenguinThink

#### **GOALS: The PenguinThink program will**

- involve incoming students with the campus and community, to mutually investigate a common topic or theme
- include interdisciplinary collaboration and conference-style presentations for incoming students
- provide opportunity for colleges and programs to collaborate and share ideas w/students across campus

#### **PenguinThink Outcomes**

- Students will recognize and articulate points of view different from their own.
- Students will appreciate the perspectives and feelings of other classmates whose opinions differ from their own.
- Students will identify the impact of the annual theme on their field of study.
- Students will identify the impact of the annual theme on the local community, state, nation, and/or world.

## Core Competencies Learning Outcomes:

### **GOAL: Students will demonstrate the ability to write and speak effectively, reason quantitatively, and think critically so they are prepared to perform appropriately in their professions upon graduation.**

- Students will demonstrate the ability to write and speak effectively, develop sound arguments, and derive justified conclusions.
- Students will demonstrate the ability to reason using quantitative data, and students will demonstrate use of mathematical methods and concepts in both abstract and concrete contexts.
- Students will demonstrate the ability to reason critically and identify credible sources.

## Knowledge Domain Learning Outcomes:

### **Natural Sciences**

#### **GOAL: Students will demonstrate understanding of the basic facts, principles, theories, and methods of science. Students will demonstrate the interdependence of science and technology and the influence of science and technology on society.**

- Students will successfully perform an experiment to test a hypothesis including the collection and analysis of data.
- Students will demonstrate the knowledge and application of scientific principles.
- Students will use and interpret formulas, graphs, and tables.
- Students will demonstrate understanding of the interactions of science, technology and society.

### **Arts and Humanities**

#### **GOAL: Students will interpret significant writings and works of art, with a focus on aesthetics, historical responses, and the nature of the human condition.**

- Students will analyze and evaluate the elements and the personal and societal impact of multiple types of literary and artistic expressions.
- Students will demonstrate awareness of ethical or cultural values in shaping the human experience.

### **Social Sciences**

#### **GOAL: Students will demonstrate understanding of the development, diversity, and complexity of human behavior, institutions, and culture.**

- Students will demonstrate understanding of the contexts and development of human cultures and institutions.
- Students will demonstrate understanding of individual and social behavior.
- Students will demonstrate an understanding of methodologies used in the social sciences.

### **Social and Personal Awareness**

#### **GOAL: Students will demonstrate understanding in any of the following critical areas of contemporary life: Domestic Diversity, International Perspectives, Sustainability, and Well-being.**

- Domestic Diversity - Students will demonstrate knowledge of the experiences of different groups within the United States where those groups are defined by class, ethnicity, race, religion, disability, sex, or sexual orientation.
- International Perspectives - Students will demonstrate knowledge of the artistic, social, economic, or political life of communities outside the United States.
- Environmental Sustainability - Students will demonstrate understanding of contemporary concerns regarding the environmental sustainability of social, economic, public policy and technological systems and practices.
- Wellbeing - Students will demonstrate understanding of and appreciation for the relationship between personal behaviors and lifelong health and wellness.

## Capstone Learning Outcomes:

**GOAL: Students will demonstrate the ability to write and speak effectively, reason quantitatively, and think critically so they are prepared to perform appropriately in their professions upon graduation. These skills will be applied in the major and culminate in the successful completion of a senior capstone project.**

- Write and speak effectively.
- Acquire, process and present quantitative and qualitative information using the most appropriate technologies.
- Reason critically, to distinguish among forms of argumentation, and to derive justified conclusions.

## Baccalaureate Degree General Education Requirements

### A. First-Year Experience (p. 49)

#### Overview of Components:

- Sexual Violence/Alcohol Awareness: Title IX/Campus SaVE - Campus Clarity: Think About It
- Career Planning: ODHE requirement - Career Services/varies by course
- Financial Literacy: mandate may be coming soon – Everfi: Transit
- Common Intellectual Experience: “PenguinThink” [2017-18: The Unintended Consequences of Innovation]
- Campus Activities: Participate in four activities with at least one being outside of the specific college/varies by college; evidence of participation varies.

More information on each of these components can be found on the First-Year Experience (<https://cms.yсу.edu/general-education/first-year-experience-learning-goals-and-outcomes>) webpage.

### B. Core Competencies (p. 50)

#### Writing

To learn the skills of effective writing, students will:

- Take two courses:
  - ENGL 1550 Writing 1 – the standard introductory writing course
  - ENGL 1551 Writing 2 – a course in which students investigate a thematic topic (students with ACT scores at or above 28 will only need to take ENGL 1551 Writing 2)
- Gather evidence from the library, Internet, or other appropriate sources
- Write a research paper using a computer

#### Speaking

To become effective speakers, students will take CMST 1545 Communication Foundations.

#### Critical Thinking

The critical-thinking learning outcome will be met through each student’s major’s curriculum.

#### Mathematics

Students must take at least one approved course that teaches mathematical and statistical skills. A student may satisfy this requirement by passing an approved course or by passing a higher-level mathematics course.

### C. Knowledge Domains: Arts and Humanities (p. 46), Natural Sciences (p. 47), Social Sciences (p. 46), and Social and Personal Awareness (p. 48)

To become more well-rounded members of the community, students are required to take a total of nine courses from the four knowledge domains. The

coursework gives students exposure to fields of study outside their majors. Students are required to take:

COURSE	TITLE	S.H.
Select two courses from each of the four domains:		
	Arts and Humanities	
	Natural Science (at least one of the courses must include a laboratory component)	
	Social Science	
	Social and Personal Awareness	
Select one general elective from any of the four domains or take a First-Year Experience course		

### D. Capstone (p. 50)

All majors require a capstone course. In the capstone course, students are required to demonstrate knowledge in their major as well as their ability to communicate in writing, their oral communication skills, and their ability to reason critically.

## Baccalaureate Degree General Education Requirements Summary

Core Competencies	
Writing	2 courses
Speech	1 course
Mathematics	1 course
Knowledge Domains	
Arts and Humanities	2 courses
Natural Science	2 courses (1 must include a lab)
Social Science	2 courses
Social and Personal Awareness	2 courses
General Education Elective/First-Year Experience	1 course
Capstone	1 course
<b>Total</b>	<b>14 courses</b>

## Associate Degree General Education Requirements

The general education requirements vary by degree; the requirements for each associate degree are listed in the appropriate college section. All associate degrees require the completion of a minimum of six courses.

COURSE	TITLE	S.H.
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3

Select four courses from at least three of the following areas:

Mathematics (no more than one course)
Speech
Natural Science
Arts and Humanities
Social Science
Social and Personal Awareness

Students should consult with their department to see if any general education courses are mandated by their program. All students in associate degree programs who, based on the Math Placement Test, are placed in the developmental math course (MATH 1501 Elementary Algebraic Models) will be required to complete that course to graduate.

## General Education and Transfer Students

### Transfer students with a bachelor's degree

Students with a bachelor's degree from a regionally accredited institution in the United States seeking an additional baccalaureate degree do not have to complete the YSU general education requirements. Students will need to take general education courses required for their major. See the Degree Audit (<http://cms.ysu.edu/administrative-offices/degree-audit/degree-audit>) website for an up-to-date list.

### Transfer students without a bachelor's degree

All transfer students without a bachelor's degree from a regionally accredited institution in the United States must complete the general education requirements. Students should consult with an academic advisor to discuss the coursework they need to complete the YSU general education requirements. See the Transfer Credit (p. 17) section of this catalog for additional information.

## Arts and Humanities

Bachelor's degree seeking students must complete two of the following:

COURSE	TITLE	S.H.
AFST 2601	Introduction to Africana Studies 2 <sup>1,2</sup>	3
ART 1540	Masterpieces of World Art <sup>1,2</sup>	3
ART 1541	Survey of Art History 1 <sup>1</sup>	3
or ART 1541H	Honors Survey of Art History 1	
ART 1542	Survey of Art History 2 <sup>1,2</sup>	3
or ART 1542H	Honors Survey of Art History 2	
DNCE 2698	Survey of Dance <sup>1</sup>	3
ENGL 1590	Introduction to Literature	3
or ENGL 1590H	Honors Introduction to Literature	
ENGL 2610	World Literature <sup>1,2</sup>	3
ENGL 2615	Science Fiction and Fantasy Literature	3
ENGL 2617	Women in Literature <sup>1,2</sup>	3
or ENGL 2617H	Honors Women in Literature	
ENGL 2618	American Literature and Diversity <sup>1,2</sup>	3
or ENGL 2618H	Honors American Literature and Diversity	
ENGL 2620	African Literature	3
ENGL 2631	Mythology in Literature <sup>1</sup>	3
or ENGL 2631H	Honors Mythology in Literature	
ENGL 2665	Introduction to Film Study <sup>1</sup>	3
or ENGL 2665H	Honors Introduction to Film Study	
FNLG 2610	Foreign Film <sup>2</sup>	3
or FNLG 2610H	Honors Foreign Film	
JOUR 2603	Journalism Ethics and Social Responsibilities <sup>1</sup>	3
JOUR 2605	Journalism as Literature	3
MUHL 2616	Survey of Jazz <sup>1</sup>	3
or MUHL 2616H	Honors Survey of Jazz	
MUHL 2617	Film Music <sup>1</sup>	3
or MUHL 2617H	Honors Film Music	
MUHL 2618	Rock n' Roll to Rock	3
or MUHL 2618H	Honors Rock n' Roll to Rock	
MUHL 2621	Music Literature and Appreciation <sup>1,2</sup>	3
MUHL 2622	Popular Music in America	3
MUHL 3771	Music History and Literature 1	3

MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
PHIL 1560	Introduction to Philosophy	3
PHIL 1561	Technology and Human Values	3
PHIL 1565	Critical Thinking	3
PHIL 2608	The Examined Life	3
PHIL/REL 2610	Global Ethics	3

Only one of the following:

PHIL 2625	Introduction to Professional Ethics <sup>1</sup>	
PHIL 2626	Engineering Ethics	
PHIL 2627	Law and Criminal Justice Ethics <sup>1</sup>	
PHIL 2628	Business Ethics	
PHIL 2635	Ethics of War and Peace <sup>1</sup>	3
PHIL 3711	General Ethics	3
REL 2601	Introduction to World Religions	3
REL 2605	Myth, Symbol, and Ritual <sup>1,2</sup>	3
REL/PHIL 2610	Global Ethics	3
REL 2617	Introduction to Asian Religions <sup>1,2</sup>	3
REL 2621	Religion and Moral Issues <sup>1</sup>	3
or REL 2621H	Honors Religion and Moral Issues	
REL 2631	Religion and the Earth <sup>1,2</sup>	3
THTR 1512	Survey of Musical Theater <sup>1</sup>	3
THTR 1560	Understanding Theater <sup>1</sup>	3
THTR 1590	History of Motion Pictures <sup>1</sup>	3
THTR 2690	The Art of Motion Pictures <sup>1</sup>	3

<sup>1</sup> Courses are part of the Ohio Transfer Module and are guaranteed to transfer to any of Ohio's public institutions of higher education as a subject area general education credit. Ohio's Department of Higher Education maintains an up-to-date list of OTM approved courses through the OTM reporting system. ([https://reports-cems.transfercredit.ohio.gov/pg\\_6?17195033559833::NO:6:](https://reports-cems.transfercredit.ohio.gov/pg_6?17195033559833::NO:6:))

<sup>2</sup> Courses are cross-listed with another General Education domain.

## Social Sciences

Bachelor's degree seeking students must complete two of the following:

COURSE	TITLE	S.H.
AFST 2600	Introduction to Africana Studies 1 <sup>2</sup>	3
AMER 2601	American Identity <sup>2</sup>	3
or AMER 2601H	Honors American Identity	
AMER 2605	Turning Points in United States History 1 <sup>1</sup>	3
AMER 2606	Turning Points in United States History 2 <sup>1,2</sup>	3
AMER 2610	Work and Class in American Culture	3
ANTH 1500	Introduction to Anthropology <sup>1</sup>	3
ANTH 1503	The Rise and Fall of Civilizations	3
CJFS 1500	Introduction to Criminal Justice	3
CMST 2600	Communication Theory	3

Only one of the following:

ECON 1501	Economics in Action <sup>1</sup>	
ECON 2610	Principles 1: Microeconomics <sup>1</sup>	
or ECON 2610H	Honors Principles 1: Microeconomics	

ECON 1502	Panic and Prosperity, United States Economic Policy Since the Great Depression <sup>1</sup>	3
ECON 1503	Rich and Poor: Diversity and Disparity in the United States Workplace <sup>1,2</sup>	3
or ECON 1503H	Honors Rich and Poor: Diversity and Disparity in the U.S. Workplace	
ECON 2630	Principles 2: Macroeconomics <sup>1</sup>	3
or ECON 2630H	Honors Principles 2: Macroeconomics	
ENGL 2651	Introduction to Language <sup>2</sup>	3
FNLG 2660	Women in the Ancient World	3
or FNLG 2660H	Honors Women in the Ancient World	
GEOG 2626	World Geography <sup>1,2</sup>	3
or GEOG 2626H	Honors World Geography	
GEOG 2640	Human Geography <sup>1,2</sup>	3
or GEOG 2640H	Honors Human Geography	
GEOG 2650	Global Economic Landscapes <sup>1,2</sup>	3
or GEOG 2650H	Honors Global Economic Landscapes	
GERO 1501	Introduction to Gerontology	3
GERO 3703	Aging and Society <sup>2</sup>	3
HIST 1500	Discovering World History <sup>1,2</sup>	3
HIST 1501	American Dreams: Introduction to United States History <sup>1</sup>	3
HIST 1511	World Civilization to 1500 <sup>1</sup>	3
or HIST 1511H	Honors World Civilization to 1500	
HIST 1512	World Civilization from 1500 <sup>1,2</sup>	3
or HIST 1512H	Honors World Civilization from 1500	
HIST 2605	Turning Points in United States History 1 <sup>1</sup>	3
or HIST 2605H	Honors Turning Points in United States History 1	
HIST 2606	Turning Points in United States History 2 <sup>1,2</sup>	3
or HIST 2606H	Honors Turning Points in United States History 2	
PHLT 1531	Fundamentals of Public Health <sup>2</sup>	3
POL 1550	Introduction to Political Science <sup>1,2</sup>	3
or POL 1550H	Honors Introduction to Political Science	
POL 1560	American Government <sup>1</sup>	3
POL 2640	Contemporary World Governments <sup>1,2</sup>	3
POL 2660	International Relations <sup>2</sup>	3
PSYC 1560	General Psychology <sup>1</sup>	3
or PSYC 1560H	Honors General Psychology	
PSYC 3700	Social Psychology	3
or PSYC 3700H	Honors Social Psychology	
PSYC 3755	Child Development	3
PSYC 3758	Lifespan Development <sup>2</sup>	3
SOC 1500	Introduction to Sociology <sup>1</sup>	3
or SOC 1500H	Honors Introduction to Sociology	
SOC 2601	Social Problems <sup>1</sup>	3
SOC 3703	Aging and Society <sup>2</sup>	3
TCOM 1595	Survey of American Mass Communications <sup>1</sup>	3
WMST 2601	Introduction to Women's Studies <sup>1,2</sup>	3

<sup>1</sup> Courses are part of the Ohio Transfer Module and are guaranteed to transfer to any of Ohio's public institutions of higher education as a subject area general education credit. Ohio's Department of Higher Education maintains an up-to-date list of OTM approved courses through the OTM reporting system. ([https://reports-cems.transfercredit.ohio.gov/pg\\_6?17195033559833::NO:6:](https://reports-cems.transfercredit.ohio.gov/pg_6?17195033559833::NO:6:))

<sup>2</sup> Courses are cross-listed with another General Education domain.

## Natural Sciences

Bachelor's degree seeking students must complete two of the following (one must include a lab):

### Natural Science Courses without a lab

COURSE	TITLE	S.H.
ASTR 1504	Descriptive Astronomy <sup>1</sup>	3
BIOL 1505	Biology and the Modern World <sup>1</sup>	3
or BIOL 1505H	Honors Biology and Modern World	
BIOL 1551	Anatomy and Physiology 1 <sup>1,4</sup>	3
CHEM 1500	Chemistry in Modern Living <sup>1</sup>	3
ENST 1500	Introduction to Environmental Science <sup>1,2</sup>	3
GEOG 1503	Physical Geography <sup>1</sup>	3
or GEOG 1503	Physical Geography	
GEOG 2630	Weather <sup>1</sup>	3
or GEOG 2630H	Honors Weather	
GEOL 1504	The Dynamic Earth	3
GEOL 2602	Introduction to Oceanography <sup>1</sup>	3
PHYS 1500	Conceptual Physics <sup>1</sup>	3
PHYS 1501	Fundamentals of Physics 1 <sup>1,4</sup>	4
PHYS 1502	Fundamentals of Physics 2 <sup>1,4</sup>	3
PHYS 2601	General Physics for Applied Medical Studies 1 <sup>1,4</sup>	4
PHYS 2602	General Physics for Applied Medical Studies 2 <sup>1,4</sup>	4
PHYS 2607	Physical Science for Middle and Secondary Education 4	4
PHYS 2608	Sound	3
PHYS 2610	General Physics 1 <sup>1,4</sup>	4
PHYS 2611	General Physics 2 <sup>1,4</sup>	4

### Natural Science Courses with a lab

Labs must be taken with the associated course in order to count for Natural Science Lab credit.

COURSE	TITLE	S.H.
ASTR 1504 & 1504L	Descriptive Astronomy and Astronomy Laboratory <sup>1</sup>	4
BIOL 1505 & 1505L	Biology and the Modern World and Biology and the Modern World Laboratory <sup>3</sup>	4
BIOL 1505H & BIOL 1505L	Honors Biology and Modern World and Biology and the Modern World Laboratory <sup>3</sup>	4
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory <sup>3,4</sup>	5
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy 1 Laboratory for Health Professions <sup>3,4</sup>	4



BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory <sup>3,4</sup>	4
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory <sup>3,4</sup>	4
BIOL 2601H & BIOL 2601L	Honors General Biology Molecules and Cells and General Biology: Molecules and Cells Laboratory <sup>4</sup>	4
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory <sup>3,4</sup>	4
BIOL 2602H & BIOL 2602L	Honors General Biology Organisms and Ecology and General Biology: Organisms and Ecology Laboratory <sup>4</sup>	4
CHEM 1500 & 1500L	Chemistry in Modern Living and Chemistry in Modern Living Laboratory <sup>3</sup>	4
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory <sup>3,4</sup>	3
CHEM 1506 & 1506L	Allied Health Chemistry 2 and Allied Health Chemistry 2 Laboratory <sup>3,4</sup>	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory <sup>3,4</sup>	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory <sup>3,4</sup>	4
ENST 1500 & 1500L	Introduction to Environmental Science and Introduction to Environmental Science Lab <sup>2,3</sup>	4
GEOG 2630 & 2630L	Weather and Weather Lab <sup>1</sup>	4
GEOG 2630H & GEOG 2630L	Honors Weather and Weather Lab <sup>1</sup>	4
GEOL 1500 & 1500L	Environmental Geology and Environmental Geology Laboratory <sup>2</sup>	4
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory <sup>3</sup>	4
GEOL 1505H & GEOL 1505L	Honors Physical Geology and Physical Geology Laboratory	4
GEOL 2611	Geology for Engineers <sup>3,4</sup>	3
PHYS 1500 & 1500L	Conceptual Physics and Conceptual Physics Laboratory <sup>1</sup>	4
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1 <sup>3,4</sup>	5
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2 <sup>1,4</sup>	4
PHYS 2601 & PHYS 2610L	General Physics for Applied Medical Studies 1 and General Physics laboratory 1 <sup>1,4</sup>	5
PHYS 2602 & PHYS 2611L	General Physics for Applied Medical Studies 2 and General Physics laboratory 2 <sup>1,4</sup>	5
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1 <sup>1,4</sup>	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2 <sup>1,4</sup>	5

<sup>1</sup> Courses are part of the Ohio Transfer Module and are guaranteed to transfer to any of Ohio's public institutions of higher education as a subject area general education credit. Ohio's Department of Higher Education maintains an up-to-date list of OTM approved courses through the OTM reporting system. ([https://reports-cems.transfercredit.ohio.gov/pg\\_6?17195033559833::NO:6::](https://reports-cems.transfercredit.ohio.gov/pg_6?17195033559833::NO:6::))

<sup>2</sup> Courses are cross-listed with another General Education domain.

<sup>3</sup> Lecture component of the course is OTM approved, however, the lab component is not OTM approved.

<sup>4</sup> Courses are designed for science, engineering, and health science majors. Students should consult their advisor before selecting them.

## Social and Personal Awareness

Bachelor's degree seeking students must complete two of the following:

### Domestic Diversity

COURSE	TITLE	S.H.
AFST 2600	Introduction to Africana Studies 1 <sup>1,2</sup>	3
AFST 2601	Introduction to Africana Studies 2 <sup>1,2</sup>	3
AMER 2601	American Identity <sup>2</sup>	3
or AMER 2601H	Honors American Identity	
AMER/HIST 2606	Turning Points in United States History 2 <sup>1,2</sup>	3
CMST 2610	Intercultural Communication	3
ECON 1503	Rich and Poor: Diversity and Disparity in the United States Workplace <sup>1,2</sup>	3
ENGL 2617	Women in Literature <sup>1,2</sup>	3
ENGL 2618	American Literature and Diversity <sup>1,2</sup>	3
ENGL 2651	Introduction to Language <sup>2</sup>	3
HIST/AMER 2606	Turning Points in United States History 2 <sup>1,2</sup>	3
or HIST 2606H	Honors Turning Points in United States History 2	
SOC 2690	Identities and Differences	3
WMST 2601	Introduction to Women's Studies <sup>1,2</sup>	3

### Environmental Sustainability

COURSE	TITLE	S.H.
ART/STEM 1530	Sustainable Design in Practice	3
or ART 1530H	Honors Sustainable Design in Practice	
ENST 1500	Introduction to Environmental Science <sup>2</sup>	3
GEOL 1500	Environmental Geology <sup>2</sup>	4
PHLT 1513	Introduction to Environmental Health and Safety	3
PHIL 2631	Environmental Ethics	3
REL 2631	Religion and the Earth <sup>1,2</sup>	3
STEM/ART 1530	Sustainable Design in Practice	3
or STEM 1530H	Honors Sustainable Design in Practice	

### International Perspectives

COURSE	TITLE	S.H.
ART 1540	Masterpieces of World Art <sup>1,2</sup>	3
ART 1542	Survey of Art History 2 <sup>1,2</sup>	3
ENGL 2610	World Literature <sup>1,2</sup>	3
FNLG 2610	Foreign Film <sup>2</sup>	3
or FNLG 2610H	Honors Foreign Film	
GEOG 2626	World Geography <sup>1,2</sup>	3
or GEOG 2626H	Honors World Geography	
GEOG 2640/2640H	Human Geography <sup>1,2</sup>	3
GEOG 2650	Global Economic Landscapes <sup>1,2</sup>	3
or GEOG 2650H	Honors Global Economic Landscapes	
HIST 1500	Discovering World History <sup>1,2</sup>	3

HIST 1512	World Civilization from 1500 <sup>1,2</sup>	3
or HIST 1512H	Honors World Civilization from 1500	
MUHL 2621	Music Literature and Appreciation <sup>1,2</sup>	3
POL 1550	Introduction to Political Science <sup>1,2</sup>	3
or POL 1550H	Honors Introduction to Political Science	
POL 2640	Contemporary World Governments <sup>1,2</sup>	3
POL 2660	International Relations <sup>2</sup>	3
REL 2601	Introduction to World Religions <sup>1,2</sup>	3
REL 2617	Introduction to Asian Religions <sup>1,2</sup>	3

## Well-Being

COURSE	TITLE	S.H.
COUN 1587	Introduction to Health and Wellness in Contemporary Society	3
FNUT 1551	Normal Nutrition	3
GERO/SOC 3703	Aging and Society <sup>2</sup>	3
GERO/SOC 3745	Sociology of Health, Illness, and Healthcare <sup>2</sup>	3
KSS 1500	Physical Activity Core Concepts (Must be taken with two activity classes)	1
PHLT 1531	Fundamentals of Public Health <sup>2</sup>	3
PHLT 1568	Healthy Lifestyles	3
PSYC 2692	Human Sexuality	3
PSYC 3707	Psychology of Intimate Relationships	3
PSYC 3758	Lifespan Development <sup>2</sup>	3
SOC/GERO 3703	Aging and Society <sup>2</sup>	3
SOC/GERO 3745	Sociology of Health, Illness, and Healthcare	3

<sup>1</sup> Courses are part of the Ohio Transfer Module and are guaranteed to transfer to any of Ohio's public institutions of higher education as a subject area general education credit. Ohio's Department of Higher Education maintains an up-to-date list of OTM approved courses through the OTM reporting system. ([https://reports-cems.transfercredit.ohio.gov/pg\\_6?17195033559833::NO:6::](https://reports-cems.transfercredit.ohio.gov/pg_6?17195033559833::NO:6::))

<sup>2</sup> Courses are cross-listed with another General Education domain.

### Physical Activity Courses to be used with KSS 1500 Physical Activity Core Concepts

COURSE	TITLE	S.H.
KSS 1502	Volleyball	1
KSS 1507	Volleyball 2	1
KSS 1508	Group Cycling	1
KSS 1509	Meditation	1
KSS 1510	Archery	1
KSS 1511	Badminton	1
KSS 1512	Bowling	1
KSS 1513	Bowling 2	1
KSS 1514	Fencing 1	1
KSS 1515	Fencing 2	1
KSS 1516	Boxing for Beginners	2
KSS 1519	Racquetball	1
KSS 1520	Golf 1	1
KSS 1521	Golf 2	1
KSS 1522	Tennis 1	1
KSS 1523	Tennis 2	1
KSS 1526	Marksmanship	1
KSS 1529	Recreational Games	1

KSS 1530	Learn to Swim	1
KSS 1531	Aquatics 2	1
KSS 1534	Fitness Swimming	1
KSS 1537	Aquatic Exercise	1
KSS 1544	Step Aerobics	1
KSS 1545	Fold and Square Dance	1
KSS 1547	Flexibility and Core Training	1
KSS 1548	Aerobic Dance	1
KSS 1549	Varsity Competition	1
KSS 1550	Pilates	1
KSS 1551	Student Athlete Experience	1
KSS 1552	Yoga	1
KSS 1553	Yoga 2	1
KSS 1554	Fitness Walking	1
KSS 1555	Jogging	1
KSS 1556	Racquetball 2	1
KSS 1557	Weight Training	1
KSS 1558	Physical Fitness for Life	2
KSS 1563	Rock Climbing	1
KSS 1564	Bicycling	1
KSS 1565	Self Defense	1
KSS 1566	Judo	1
KSS 1568	Taekwondo/Karate	1
KSS 2632	Skin and Scuba Diving	2
KSS 2635	Open Water Scuba Diving	1
KSS 2637	Skin, Scuba and Openwater Diving	3
KSS 2697	Camping	2
MUEN 0006	Marching Band <sup>3</sup>	1

<sup>3</sup> Although the courses is permitted to be taken multiple times, it only counts as 1 activity course.

<sup>4</sup> Although this courses is more than one credit, it only counts as one activity courses. The number of classes (2) is what s required, regardless of how many credits each individual course.

## First Year Experience

During their first year, Bachelor's degree seeking students must elect to take a First Year Experience course as a Gen Ed elective.

COURSE	TITLE	S.H.
AHLT 1500	Introduction to Online Learning in Health Professions	3
or PHLT 1500	Introduction to Online Learning in Health Professions	
or RESC 1500	Introduction to Online Learning in Health Professions	
BUS 1500	Exploring Business	3
or BUS 1500H	Honors Exploring Business	
CCAC 1500	College Success	3
COUN 1589	Success in Career and Life Planning	3
ENGR 1500	Engineering Orientation	3
& ENGR 1550	and Engineering Concepts	
ENGR 1500H	Honors Engineering Orientation	3
& ENGR 1550H	and Honors Engineering Concepts	
ENTC 1501	Introduction to Engineering Technology	2
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
HAHS 1510	Investigations into Social Classes in America	3
KSS 1595	Introduction to Kinesiology and Sport Science	2
LASS 1510	Exploring Critical Questions in LASS	3
STEM 1520	STEM First Year Orientation	2

TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
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<sup>1</sup> Courses are part of the Ohio Transfer Module and are guaranteed to transfer to any of Ohio's public institutions of higher education as a subject area general education credit. Ohio's Department of Higher Education maintains an up-to-date list of OTM approved courses through the OTM reporting system. ([https://reports-cems.transfercredit.ohio.gov/pg\\_6?17195033559833::NO:6::](https://reports-cems.transfercredit.ohio.gov/pg_6?17195033559833::NO:6::))

## Overview of Modules:

- Sexual Violence/Alcohol Awareness: Title IX/Campus SaVE - Campus Clarity: Think About It
- Career Planning: ODHE requirement - Career Services/varies by course
- Financial Literacy: mandate may be coming soon – Everfi: Transit
- Common Intellectual Experience: "PenguinThink" [2017-18: The Unintended Consequences of Innovation]
- Campus Activities: Participate in four activities with at least one being outside of the specific college/varies by college; evidence of participation varies.

More information on each of these modules can be found [HERE](#) (p. 42)

## Core Competencies

### Writing

Bachelor's degree seeking students must complete the following two courses:

COURSE	TITLE	S.H.
ENGL 1550	Writing 1 <sup>1</sup>	3
or ENGL 1550H	Honors Writing 1	
ENGL 1551	Writing 2 (Students with ACT scores at or above 28 will only need to take ENGL 1551) <sup>1</sup>	3
or ENGL 1551H	Honors Writing 2	

### Speaking

Bachelor's degree seeking students must complete the following course:

COURSE	TITLE	S.H.
CMST 1545	Communication Foundations <sup>1</sup>	3
or CMST 1545H	Honors Communication Foundations	

### Mathematics

Bachelor's degree seeking students must complete one of the following courses:

COURSE	TITLE	S.H.
MATH 1510	College Algebra <sup>1</sup>	4
MATH 1513	Algebra and Transcendental Function <sup>1</sup>	5
MATH 1552	Applied Mathematics for Management <sup>1</sup>	4
MATH 1570	Applied Calculus 1 <sup>1</sup>	4
MATH 1571	Calculus 1 <sup>1</sup>	4
MATH 1572	Calculus 2 <sup>1</sup>	4
MATH 1581H	Honors Biomathematics 2	4
MATH 1585H	Accelerated Honors Calculus 1	5
MATH 2623	Quantitative Reasoning	3
MATH 2652	Mathematics for Early Childhood Teachers 2	3
MATH 2665	Foundations of Middle School Mathematics 2	4
MATH 2670	Applied Calculus 2	5
MATH 2686H	Accelerated Honors Calculus 2	5
STAT 2601	Introductory Statistics <sup>1</sup>	3
STAT 2625	Stat Lit and Crit Reasoning <sup>1</sup>	4
PHIL 2619	Introduction to Logic	3

## Capstone

Bachelor's degree seeking students must complete one of the following courses within their major:

COURSE	TITLE	S.H.
AMER 4810	Independent Project in American Culture	1-3
ANTH 4860	Senior Thesis 2	3
ART 4803	Senior Seminar	3
ART 4889	Seminar in Art History	3
ASTR 4815	Undergraduate Astronomy Research	3
CEEN 4863	Integrated Design Project	3
BIOL 4861	Senior Biology Capstone Experience	2
CHEM 4850 & 4850L	Chemistry Research and Chemistry Research Laboratory	3-4
CIS 4840	Business System Analysis and Design	4
CJFS 4848	Loss Prevention and Assets Protection Administration	3
CJFS 5814	Practice and Ethics in Forensic Science	3
CMST 4899	Senior Project	3
CSCI 4890	Computer Projects	2-4
CSIS 4870	Web Communications Capstone	3
DHYG 4840	Directed Dental Hygiene Research	3
ECE 4811	Supervised Student Teaching: Pre-Kindergarten	1-12
ECE 4841	Supervised Student Teaching: Early Childhood	1-10
ECEN 4899	Senior Design Project	4
ECON 4880	Analysis of Economic Problems	3
ENGL 4870	Web Communications Capstone	3
ENGL 4890	Senior Seminar	3
ENGL 4899	Professional and Technical Writing Senior Project	3
ENST 5830	Risk Assessment	3
FNUT 4885	Practicum in Dietetics	4
FNUT 4895	DPD Capstone	3
GEOG 4890	Geography Capstone	3
GEOL 48xxF	Field Camp Course	
GEOL 5802	Sedimentology and Stratigraphy	3
GERO 4851	Capstone in Gerontology	3
HIST 4870	Senior Research Seminar	3
HMEC 4876	Undergraduate Research	2
HMEC 4877	Research Capstone	2
INFO 4880	Information Technology Analysis and Design	3
ISEN 4821 & ISEN 4822	Capstone Design 1: Manufacturing and Service Systems and Capstone Design 2: Logistics Systems	6
JOUR 4893	Journalism Senior Project	3
LASS 4880	General Studies Capstone	3
ITAL 4880	Italian Conversation and Composition Capstone	4
MATH 4896	Senior Undergraduate Research Project	2
MECH 4808 & 4808L	Mechanical Systems Design 1 and Mechanical Systems Design Laboratory	6
& MECH 4809	and Mechanical Systems Design 2	
MGT 4850	Strategic Management and Leadership	3
MRCH 4880	Merchandising Management	3
Music 4802, 4804, or 4806	Applied Studio Instruction	

NURS 4852	Senior Capstone Seminar	1
PHIL 4861	Senior Capstone Project	3
PHLT 4899	Public Health Senior Seminar	3
POL 4801	Senior Research Seminar	3
PHYS 4805	Undergraduate Physics Research	3
PSYC 4890	Senior Thesis	1
PSYC 4895	Senior Psychology Capstone Experience	2
REL 4871	Senior Capstone Project	3
SCWK 4827	Integrated Capstone Seminar	3
SED 4842	Supervised Student Teaching: High School	1-10
SED 4827	Supervised Student Teaching: Language (K-12)	1-10
SED 4843	Supervised Student Teaching: Art (K-12)	1-10
SED 4844	Supervised Student Teaching: Music (K-12)	1-10
SED 4845	Supervised Student Teaching: Health (K-12)	1-10
SPAN 5885	Topics in Hispanic Literature and Film	3
SPAN 5890	Topics in Spanish Literature: Spanish-America	3
SPED 4839	Supervised Student Teaching: Moderate/Intensive Intervention Specialist	4-12
SPED 4849	Supervised Student Teaching: Mild Moderate/Disabilities	4-12
STAT 4896	Statistical Project	2
TCOM 4899	Capstone	2
TEMC 4802	Student Teaching: Middle Childhood	5-10
THTR 4898	Senior Project	3

# Ohio Residency

## Ohio student residency for state subsidy and tuition surcharge purposes

### 1. Intent and authority

- a. It is the intent of the chancellor of the Ohio Department of Higher Education in promulgating this rule to exclude from treatment as residents, as that term is applied here, those persons who are present in the state of Ohio primarily for the purpose of receiving the benefit of a state-supported education.
- b. This rule is adopted pursuant to Chapter 119 of the Revised Code, and under the authority conferred upon the chancellor of the Ohio Department of Higher Education by section 3333.31 of the Revised Code.

### 2. Definitions

- a. "Resident" shall mean any person who maintains a twelve-month place or places of residence in Ohio, who is qualified as a resident to vote in Ohio and receive state public assistance, and who may be subjected to tax liability under section 5747.02 of the Revised Code, provided such person has not, within the time prescribed by this rule, declared himself or herself to be or allowed himself or herself to remain a resident of any other state or nation for any of these or other purposes.
- b. "Financial support" as used in this rule, shall not include grants, scholarships and awards from persons or entities which are not related to the recipient.
- c. An "institution of higher education" shall have the same meaning as "state institution of higher education" as that term is defined in section 3345.011 of the Revised Code, and shall also include private medical and dental colleges which receive direct subsidy from the state of Ohio.
- d. "Domicile" as used in this rule is a person's permanent place of abode, so long as the person has the legal ability under federal and state law to reside permanently at that abode. For the purpose of this rule, only one domicile may be maintained at a given time.

- e. "Dependent" shall mean a student who was claimed by at least one parent or guardian as a dependent on that person's internal revenue service tax filing for the previous tax year.
- f. "Residency Officer" means the person or persons at an institution of higher education that has the responsibility for determining residency of students under this rule.
- g. "Community Service Position" shall mean a position volunteering or working for:
  - i VISTA, Americorps, city year, the peace corps, or any similar program as determined by the chancellor of the Ohio Department of Higher Education; or
  - ii An elected or appointed public official for a period of time not exceeding twenty-four consecutive months.

### 3. Residency for subsidy and tuition surcharge purposes.

The following persons shall be classified as residents of the state of Ohio for subsidy and tuition surcharge purposes:

- A student whose spouse, or a dependent student, at least one of whose parents or legal guardian, has been a resident of the state of Ohio for all other legal purposes for twelve consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.
- A person who has been a resident of Ohio for the purpose of this rule for at least twelve consecutive months immediately preceding his or her enrollment in an institution of higher education and who is not receiving, and has not directly or indirectly received in the preceding twelve consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes.
- A dependent student of a parent or legal guardian, or the spouse of a person who, as of the first day of a term of enrollment, has accepted full-time, self-sustaining employment and established domicile in the state of Ohio for reasons other than gaining the benefit of favorable tuition rates. Documentation of full-time employment and domicile shall include both of the following documents:
  - a. A sworn statement from the employer or the employer's representative on the letterhead of the employer or the employer's representative certifying that the parent, legal guardian or spouse of the student is employed full-time in Ohio.
  - b. A copy of the lease under which the parent, legal guardian or spouse is the lessee and occupant of rented residential property in the state; a copy of the closing statement on residential real property located in Ohio of which the parent, legal guardian or spouse is the owner and occupant; or if the parent, legal guardian or spouse is not the lessee or owner of the residence in which he or she has established domicile, a letter from the owner of the residence certifying that the parent, legal guardian or spouse resides at that residence.

### Additional criteria which may be considered in determining residency may include but are not limited to the following:

- 1. Criteria evidencing residency:
  - a. If a person is subject to tax liability under section 5747.02 of the Revised Code;
  - b. If a person qualifies to vote in Ohio;
  - c. If a person is eligible to receive Ohio public assistance;
  - d. If a person has an Ohio's driver's license and/or motor vehicle registration.
- 2. Criteria evidencing lack of residency
  - a. If a person is a resident of or intends to be a resident of another state or nation for the purpose of tax liability, voting, receipt of public assistance, or student loan benefits (if the student qualified for that loan program by being a resident of that state or nation);

- b. If a person is a resident or intends to be a resident of another state or nation for any purpose other than tax liability, voting, or receipt of public assistance (see paragraph (D)(2)(a) of this rule).
- c. For the purpose of determining residency for tuition surcharge purposes at Ohio's state-assisted colleges and universities, an individual's immigration status will not preclude an individual from obtaining resident status if that individual has the current legal status to remain permanently in the United States.

**Exceptions to the general rule of residency for subsidy and tuition surcharge purposes:**

1. A person who is living and is gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who is pursuing a part-time program of instruction at an institution of higher education shall be considered a resident of Ohio for these purposes.
2. A person who enters and currently remains upon active duty status in the United States military service while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
3. A person on active duty status in the United States military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio for these purposes.
4. A veteran, veteran's spouse, or dependent of a veteran who meets both of the following conditions:
  - a. Served one or more years on active military duty and was honorably discharged, or received a medical discharge, or was killed while serving on active duty, and
  - b. Establishes domicile in Ohio as of the first day of the term of enrollment.
5. A person who is transferred by his employer beyond the territorial limits of the fifty states of the United States and the District of Columbia while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile as long as such person has fulfilled his or her tax liability to the state of Ohio for at least the tax year preceding enrollment.
6. A person who has been employed as a migrant worker in the state of Ohio and his or her dependents shall be considered a resident for these purposes provided such person has worked in Ohio at least four months during each of the three years preceding the proposed enrollment.
7. A person who was considered a resident under this rule at the time the person started a community service position as defined under this rule, and his or her spouse and dependents, shall be considered a resident of Ohio while in service and upon completion of service in the community service position.
8. A person who graduated from an Ohio high school, left the state, and returns to enroll in an Ohio public institution of higher education and establishes domicile in the state.
9. A person who returns to the state of Ohio due to marital hardship, takes or has taken legal steps to end a marriage, and reestablishes financial dependence upon a parent or legal guardian (receives greater than fifty percent of his or her support from the parent or legal guardian), and his or her dependents shall be considered residents of Ohio.
10. A person who is a member of the Ohio National Guard and who is domiciled in Ohio, and his or her spouse and dependents, shall be considered residents of Ohio while the person is in Ohio national guard service.
11. A person who is eligible, or whose benefits have been exhausted or have expired, for benefits under the Post 9/11 Veterans Educational Assistance Act of 2008 or any prior federal act establishing veterans' education benefits, who has been honorably discharged or released from service, who, as of the first day of a term of enrollment, is domiciled in Ohio, and his or her spouse and dependents, shall be considered residents of Ohio

for these purposes as long as Ohio remains the state of such person's domicile.

Documentation determined to be acceptable by the institution:

1. DD214 or other military document showing honorable discharge.
2. Documentation of domicile shall include a copy of the lease under which the person or spouse is the lessee and occupant of rented residential property in the state; a copy of the closing statement on residential real property located in Ohio of which the person or spouse is the owner and occupant; or if the person or spouse is not the lessee or owner of the residence in which he or she has established domicile, a letter from the owner of the residence certifying that the person or spouse resides at that residence.

**Procedures**

1. A dependent person classified as a resident of Ohio for these purposes under the provisions of paragraph (C)(1) of this rule and who is enrolled in an institution of higher education when his or her parents or legal guardian removes their residency from the state of Ohio shall continue to be considered a resident during continuous full-time enrollment and until his or her completion of any one academic degree program.
2. In considering residency, removal of the student or the student's parents or legal guardian from Ohio shall not, during a period of twelve months following such removal, constitute relinquishment of Ohio residency status otherwise established under paragraph (C)(1) or (C)(2) of this rule.
3. For students who qualify for residency status under paragraph (C)(3) of this rule, residency status is lost immediately if the employed person upon whom resident student status was based accepts employment and establishes domicile outside Ohio less than twelve months after accepting employment and establishing domicile in Ohio.

**Reclassification**

1. Any person once classified as a nonresident must apply to the institution he or she attends for reclassification as a resident of Ohio for these purposes if such person in fact wants to be reclassified as a resident. It is the student's responsibility to initiate contact. Should such person present clear and convincing proof that no part of his or her financial support is or in the preceding twelve consecutive months has been provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident. Evidentiary determinations under this rule shall be made by the institution which may require, among other things, the submission of documentation regarding the sources of a student's actual financial support.
2. Any reclassification of a person who was once classified as a nonresident for these purposes shall have prospective application only from the date of such reclassification.
3. Any institution of higher education charged with reporting student enrollment to the chancellor of the Ohio Department of Higher Education for state subsidy purposes and assessing the tuition surcharge shall provide individual students with a fair and adequate opportunity to present proof of his or her Ohio residency for purposes of this rule. Such an institution may require the submission of affidavits and other documentary evidence which it may deem necessary to a full and complete determination under this rule.

*Revised 6/13/16*

## **Student Services**

### ***Academic Coaching Services***

The Center for Student Progress (CSP) Academic Coaching Services offers professional academic coaching to assist students on a one-on-one basis with strategies for college success. Coaches provide on-site assistance by teaching students learning and meta-cognitive strategies that apply to coursework.

Academic coaches also make campus referrals and follow-up to ensure students receive all the University support available.

Visit Center for Student Progress Academic Coaching Services (<https://cms.yсу.edu/administrative-offices/center-student-progress/academic-coaching-services>) for more information or call (330) 941-3538.

## Adult Learner Services

The Center for Student Progress Adult Learner Services assists adult students in making the transition to and graduating from college. Adult students are defined as those who are 25 years of age or older or who have been out of school four years or more. The CSP/Adult Learner Services provides academic and personal support both individually and through programming with services such as:

- Academic Coaching
- Starfish Early Alert warning progress reports
- Time management and goal setting for adults

Visit Center for Student Progress Adult Learner Services (<http://cms.yсу.edu/administrative-offices/center-student-progress/adult-learner-services>) for more information or call (330) 941-3538.

## Career & Academic Advising

The Office of Career & Academic Advising serves as the platform to explore career and employment opportunities. This office provides exploratory career & academic advising to first/second year students. And it provides career services to third/fourth year students in all areas of career decision making and the professional job search.

Within the first year of their course of study, students are encouraged to meet with a Career & Academic Advisor in order to utilize available career and major exploration services.

- individual career and major exploration services tailored to the individual to help one choose a career field that matches their interests
- comprehensive online career resource center for students to learn about career fields
- exploratory academic advising

During the junior and senior years of study, students are encouraged to meet with a Career Management Coordinator for professional employment or graduate school preparation.

- resume and interview advice to market individuals for jobs
- workshops and events to connect students with employers
- on-campus programs which brings employers to the YSU campus to interview students for employment after graduation
- job postings from hundreds of local, regional, and national employers
- annual career fairs

Central to the operation of the Office of Career & Academic Advising is Handshake (<https://ysu.joinhandshake.com/login>) (software by Symplicity), a web-based application that makes it possible for students and YSU alumni to connect with hiring employers 24-hours-a-day/7-days-a-week. Through Handshake (<https://ysu.joinhandshake.com/login>), students and alumni can upload their resumes to the database, search job listings and send resumes directly to employers. Students can also receive notifications of recruiting events and sign up for interviews with employers on YSU's campus. For more information, visit Career & Academic (<http://cms.yсу.edu/administrative-offices/career-services/career-and-academic-advising>) Advising on the web.

## Counseling Services

The YSU Student Counseling Services provides high quality, short term, confidential mental health counseling, consultation, outreach (educational training), and referral services to our currently enrolled students. Common

issues that we address include anxiety, depression, stress, relationship concerns, and difficulty managing multiple roles and the impacts of these on being a successful college student. Juggling life's responsibilities is a challenge that causes many individuals to feel anxious, confused, or overwhelmed at times. We are here to help. The Student Counseling Services Center is located in 3009 Jones Hall. Our office hours are Monday - Friday, 8 am - 5 pm. Our phone number is (330) 941-3737 and/or visit Student Counseling Services (<http://cms.yсу.edu/administrative-offices/counseling-services/counseling-services>).

## Day Care

Students who have younger children may wish to place them in on-campus childcare centers.

Wee Care Day Care and Learning Centre is the official provider of childcare services to Youngstown State University students, faculty, staff, and alumni. Special discounted rates are available and we accept ODJFS contracts as well. The Center has a professionally trained staff that takes care of children ages six weeks to 10 years, including preschool and pre-K State approved curriculum based programs. The Centre is located in Fedor Hall and is open from 5 a.m. to 11:30 p.m. The phone number is (330) 941-2936.

Wee Care is equipped with 24-hour-a-day video monitoring and a very strict sign-in and sign-out policy. Besides the convenience of its on campus location, Wee Care has six other locations throughout Mahoning and Trumbull County. Students especially like the flexible scheduling options to meet their university needs.

Students may also be eligible for child care through the Mahoning County Educational Service Center, which has day care facilities throughout Mahoning County, including one on the YSU campus. Please call (330) 965-7828 for more information.

Partial reimbursement is also available to University students for either Wee Care Day Care or other licensed off-campus day care facilities. Contact the Office of Financial Aid and Scholarships at (330) 941-3501 for more information.

For more information, visit Wee Care Day Care (<http://www.weecareohio.com/partners.html>).

## Disability Services

The Center for Student Progress Disability Services provides students, faculty, and staff with assistance and information regarding accommodations for students with disabilities, either permanent or temporary. Compliance with the Rehabilitation Act of 1973 and the Americans with Disabilities Act as amended 2008 involves providing reasonable accommodations to qualified individuals with disabilities. These accommodations are provided in order to ensure equal access to people with disabilities regarding educational opportunities, programs, and activities.

The Center for Student Progress Disability Services addresses the needs of students with disabilities. Support for academic success includes:

- Serving as the gateway for accommodations for YSU students with disabilities
- Providing accommodation information
- Collaborating with faculty/staff regarding issues involving students with disabilities
- Arranging for classroom accommodations for students with disabilities to allow equal educational access
- Making campus referrals/connections

To inquire about receiving disability services, please contact the office at (330) 941-1372 (voice), (866) 757-1353 (video), or (330) 941-7470 (fax). A

confidential appointment will be set up to discuss accommodation needs. The CSP/Disability Services is located at 36 Wood Street.

Visit Center for Student Progress Disability Services (<http://cms.ysu.edu/administrative-offices/center-student-progress/disability-services>) for additional information or call (330) 941-1372.

## First-Year Student Services

### First Year Student Services

First Year Student Services has the main goal of making sure all of our students have a successful first year on campus. We do this by providing important information, opportunities to connect with peers, mentors who can assist students, and more. Our office contains five main programs and services listed below:

#### Orientation:

All incoming first year students will attend one of our programs that happen prior to the semester beginning. During Orientation, students will learn about the expectations of the university, make connections to other incoming students, and register for their academic courses. The orientation program for new transfer students is a shorter version that offers insight in to YSU, however transfer students are able to register for classes even before attending orientation. For any questions regarding Orientation, please contact us at [orientation@ysu.edu](mailto:orientation@ysu.edu) or 330-941-2131.

#### IGNITE:

IGNITE is a program for all Summer and Fall start first year students. It takes place the two days before Fall semester begins and is aimed at allowing the entire incoming class the opportunity to connect to each other, to campus, and to resources offered. It's a dynamic and engaging two days to welcome students to the community.

#### Peer Leaders:

Peer Leaders are YSU students who are dedicated to helping first year students succeed on campus. They serve as a main point of contact, referral agent, and source of knowledge to students. Any first year student can count on their Peer Leader to answer questions, get them connected to campus, and help them find answers to any questions. Peer Leaders work with students for their entire first year at YSU.

#### First Year Leadership Programs:

We are proud to offer programming that will help first year students build the skills they need to be successful inside and outside of the classroom. Our programs will teach essential skills, theory, and knowledge while also allowing students to apply this to their collegiate experience. Programs are open to all first year students.

#### Parent and Family Programs:

We pride ourselves on welcoming the entire family to the Penguin community. We send a monthly newsletter to interested family members sharing campus information and asking for assistance in the first year transition. We also offer programming during Family Day and other university events.

## Kilcawley Center

Since its opening in April 1974, Kilcawley Center has served as the heart of campus. This not only refers to its central location on campus, but also to the many services, conveniences, programs, and amenities it provides to the University community. The Center's casual atmosphere, comfortable lounges, and attractive dining areas focus on making free-time activity an integral part of a YSU education. Through cultural, social, and recreational programming, Kilcawley Center provides for rich and diverse experiences for YSU students. Visit Kilcawley Center (<http://www.kc.ysu.edu>) for details on services, hours

of operation, staff directory, the daily calendar of events, and student job postings.

Kilcawley Center's study lounges are renowned for their comfortable chairs and couches that are perfect for studying, relaxing, or napping. The lounges and restaurant dining areas in Kilcawley Center provide high-speed wireless Internet access. The Center offers convenient ATM banking, copy services at ComDoc, and offices for Student Government, the *Jambar* student newspaper, Rookery Radio, and Student Diversity Programs. Kilcawley Center houses sixteen seminar rooms, two computer-training classrooms, and a large multi-purpose room. On a daily basis, these rooms host luncheons, workshops, seminars, lectures, organization meetings, and programs.

Graphic Services, located on the lower level of the Center, designs flyers, banners, posters, brochures, and graphics for student organizations and student projects.

Kilcawley Center offers diverse choices in dining. Located on the lower level of Kilcawley are:

- YSU Wendy's with all your favorites
- Jamba Juice (smoothies, juices, and steel cut oatmeal)
- KC Food Court - which includes Denny's "The Den" (bold breakfasts, grilled burgers, hot sandwiches, and fresh salads)
- Chop'd & Wrap'd (made-to-order salads and wraps)
- 2.Mato (classic Italian favorites including specialty pizzas)
- Dunkin' Donuts
- Mondo Subs (made to order gourmet subs, wraps, and flatbread sandwiches)

Located on the upper level is Kilcawley Center's popular Chick-fil-A Restaurant offering delicious chicken that is 100% breast meat, no fillers or additives, and is hand-breaded in our kitchens. Visit Dine On Campus (<http://www.dineoncampus.com/ysu>) for meal plans, catering, campus places to eat, and today's menus including sustainability and nutritional information.

Pete's Treats is a popular place for quick snacks and beverages, along with U.S. postage stamps and single-dose healthcare items. Visit Pete's Treats to choose delicious chocolates and candy favorites in glass candy jars. Pete's Treats is located on the lower level of Kilcawley Center.

**Campus Meal Plans** are available for purchase and are offered with a variety of dining options. A YSU meal plan brochure is available at Meal Plans (<http://cms.ysu.edu/administrative-offices/housing-and-residence-life/meal-plan-information>). For answers to frequently asked meal plan questions or to purchase a meal plan, visit the YSU Chartwells webpage at Dine On Campus (<http://www.dineoncampus.com/ysu>).

Adding **Pete's Points** to your YSU ID card will allow you to debit your purchase at ANY Kilcawley dining location including Pete's Treats. Pete's Points are also accepted at many nearby locations both on and off campus and are listed at Times2Dine (<http://times2dine.yisu.edu>). Stop in the Kilcawley Center Staff Office for more information.

Chartwells provides a full catering menu for small group functions to large dinner buffets. Once you have secured a room reservation in Kilcawley Center, or a site location on or off campus, Chartwells catering director will help you coordinate every detail to ensure your event is a success—whether you are planning a quick box lunch or an elaborate buffet. Contact the Chartwell Catering Department at (330) 941-1979, visit Dine On Campus (<http://www.dineoncampus.com/ysu>), or visit the office located on the lower level of Kilcawley Center.

The Office for Student Experience is located on the upper level of the Kilcawley Center. This suite of offices includes the Kilcawley Center Staff Office, the Associate VP for Student Experience Office, and the Office of Student Conduct. The upper level of the Center includes Student Government, Student Activities, and the Office of Career and Academic Advising. The Andrews Student

Recreation and Wellness Center can also be accessed from the upper level of Kilcawley Center.

The YSU Info & PC Lab is where students can find popular software programs on the PCs and access to the Internet. The YSU Info & PC Lab serves as the information center and lost & found for the University, registers students for campus locker rentals, provides estimates for Kilcawley Resume and Typing Service, and offers for purchase 24-hour campus wireless access (ATT) cards. A fax service is also available and includes international faxing. YSU Info is located on the upper level of the Center near the main lobby.

Kilcawley Center's lower level west wing, houses the Center for Student Progress. The east wing of Kilcawley Center is Kilcawley House, where the Office of Housing and Residence Life and Mercy Health Student Health Clinic are located on the first floor.

## Mercy Health Student Health Center

The Mercy Health Student Health Center is located on the first floor of Kilcawley House, which is adjacent to Kilcawley Center. The entrance to the Center is located off University Plaza.

The Center provides health care to all currently enrolled YSU students – both resident and commuter students. Licensed physicians staff the Health Center twelve (12) hours per week during the semester. Appointments are required. Students must call (330) 941-3489 to schedule an appointment. During break weeks and summer term, the Center may have limited hours. Please call the Center for availability.

Health care is available for illness, injury, first aid, and routine health checks. Health screening tests, physical exams for sports and academic programs, gynecological exams, as well as consultations and referrals, are provided. Flu and other immunizations are also given; however, there are charges for these injections.

Office visits are free. Students do not need to have health insurance to use the Center's services. Blood tests, x-rays, lab tests, etc., ordered by a physician are done off campus at the student's choice of provider and at the student's expense.

Student records are kept strictly confidential. Information cannot be released to anyone without the written consent of the student. Certain public health diseases, however, must be reported to the Department of Health as required by law.

For more information, visit Student Health Clinic (<http://cc.yсу.edu/student-services/health/index.shtml>).

## Multicultural Student Services

The Center for Student Progress Multicultural Student Services provides the following services and programs to African American, Hispanic, Asian American, and Native American students:

- Academic support
- Workshops
- Faculty/staff mentoring
- Campus referrals and connections
- Starfish Early Alert warning progress reports
- Co-sponsoring of cultural events
- Advocating for minority students
- Summer Bridge and Bridge and Beyond Learning Community

Visit Center for Student Progress Multicultural Student Services (<https://cms.yсу.edu/administrative-offices/center-student-progress/multicultural-student-services>) for more information or call (330) 941-3538.

## Photo Identification Card

The Division of Student Experience issues a photo identification card to every student enrolled at the University. The student must carry the card while on campus. The use of this card is restricted to the student to whom it was issued. Lost or stolen cards must be replaced at the student's expense (see "Student Fees and Charges" for amount). To replace the card, the student must present proper identification (e.g. driver's license) in Kilcawley Center at the Penguin Xing and pay the applicable replacement fee. The photo identification card is the property of the University and must be surrendered by the student upon request by University officials.

## Student Diversity Programs

The Office of Student Diversity Programs serves to enhance our student's collegiate experience by contributing to an environment supportive of diversity and inclusion. As such, Student Diversity Programs supports individuals and student organizations to advance our culture of community. This promotes an environment conducive to cultivating relationships, creating a sense of belonging, encouraging personal growth and responsibility, and developing a strong set of interpersonal and professional skills for all students. Through the programs and services of this office students learn the value of civic engagement, cultural awareness, and gain an appreciation for diverse perspectives.

The Office of Student Diversity Programs is located on the lower level of Kilcawley Center directly off the International Student Lounge. The office hours are 8:00 a.m. - 5:00 p.m., Monday through Friday. Our phone number is (330) 941-2087.

## Student Tutorial Services

The Center for Student Progress Student Tutorial Services provides support for academic success by offering:

- Academic support in a variety of lower and upper division courses
- Appointments are scheduled on first come first served basis
- Students meet weekly at the same time/day with same Peer Tutor
- Tutors offer review sessions for exams
- Emphasis on clarifying content, providing opportunities to practice, and developing independent learning, critical thinking and problem-solving skills

Visit Center for Student Progress Student Tutorial Services (<http://cms.yсу.edu/administrative-offices/center-student-progress/student-tutorial-services>) for additional information as well as a tutorial schedule or call (330) 941-7253.

## Supplemental Instruction Services

The Center for Student Progress Supplemental Instruction Services (SI) offers academic support through a series of weekly guided review sessions for students enrolled in selected courses to assist students in doing their best.

- Regularly scheduled, weekly review sessions to guide students in course content and learning strategies.
- Peer-led by an experienced and successful student, who has been trained to facilitate learning through collaborative activities that integrate study skills.
- Free, voluntary and open to all students
- Students get together with classmates, compare notes, discuss important concepts, and develop strategies for studying the subject.

For additional information, visit the Center for Student Progress Supplemental Instruction (<http://cms.yсу.edu/administrative-offices/center-student-progress/supplemental-instruction-si-services>) website or call (330) 941-3538.



## Veterans Affairs

Located in the Veterans Resource Center at 633 Wick Avenue, the Office of Veterans Affairs (OVA) serves as a central location to discuss issues, questions, or concerns current and prospective military and veteran students may have regarding their enrollment. The university recognizes the sacrifice of military service and waives the undergraduate and graduate application and new student orientation fees for all veterans and currently serving military members. To have the application fee waived, the applicant must provide a DD Form 214 or other verification of honorable service in the armed forces of the United States.

After their initial registration, all military and veteran students are then qualified for the following veteran benefits at YSU:

- Priority registration
- Enrollment into select "Veterans Friendly" GER courses
- Voluntary membership into the "Armed Forces Student Association" (YSU's Student Veteran Organization)
- Evaluation of military training for possible college credit
- GI Bill counseling and certification
- Assistance with coordination of periods of military service during the semester
- Advocacy and counseling services
- Email information letters with pertinent information related to student veterans
- Special recognition at graduation

The OVA also works with the Office of Veterans Affairs Advisory Council, an independent body that guides and supports the university's efforts to serve those who have or are serving in the armed forces. The Council is a representative body drawn from faculty, students, staff, and the community.

The Veterans Resource Center (VRC) on campus at 633 Wick Avenue is a 6,000 square foot, fully handicap accessible facility that is the first of its kind at any university in Ohio. The VRC features lounge space, a computer lab, meeting rooms, a community/class room, kitchenette, ample office space for outside veteran-related organizations and much more. The VRC is open to all student veterans, currently serving military members and military dependents that are using veteran's education benefits.

Students and all interested parties can contact the OVA by visiting our OVA (<http://cms.ysu.edu/administrative-offices/veterans-affairs/office-veteran-affairs>) website, emailing us at [veterans@ysu.edu](mailto:veterans@ysu.edu), or calling the office at (330) 941-2503. Individual person-to-person meetings are available and encouraged.

## University Housing Housing & Residence Life

YSU owns and operates five housing facilities for students:

- **Kilcawley House**, located on University Plaza
- **Lyden House** and **Cafaro House**, located on Madison Avenue
- **Wick House** and **Weller House**, located on Wick Avenue

On-campus options for students range from traditional residence hall facilities to apartment-style housing.

On-campus living provides students many advantages and opportunities. University housing facilities are structured environments. Each is a small community, and as such, has procedures and regulations addressing such things as noise, safety, guests and security. University residence halls have full-time professional and part-time student staff that oversee the operation of the halls and assist students with the challenges of daily college life. Each facility has state-of-the-art building security systems. On-campus living is a good place to get to know many students in a short period of time. Sharing

bathrooms, lounge space, and corridors with a group means you can't help but make friends quickly. Being on campus also means that classes, the library, the student center, and the wellness center are never very far away.

For more information, see the Housing and Residence Life (<http://housing.ysu.edu>) website.

## Kilcawley House

Kilcawley House was constructed in 1965 and has undergone a complete renovation. This seven-story building can accommodate 224 students. Kilcawley residents live in double-occupancy rooms, complete with loft-style furniture, wall-to-wall carpeting, cable TV, Internet access, and plenty of flexible space. Rooms feature separate room-controlled heating and air conditioning. Lounges and study areas are available on each floor. A computer lab with Internet access is located in the basement. The basement also contains a TV lounge, a game room equipped with ping-pong and pool tables, a kitchen with vending machines, a 24-hour study area, and two music practice rooms. Its residents have the advantage of being located in the heart of the YSU campus and can use all of Kilcawley Center's facilities including a computer center, and copying service without going outdoors.

## Lyden House

When Lyden House opened, a new era began for on-campus housing at Youngstown State. The impressive five-story structure reflects a traditional collegiate gothic style with clean, contemporary lines. Lyden House, located just north of campus along Madison Avenue, houses 300 students. A typical student room is approximately 12' x 17' and houses two students. In addition to a bunk bed, which can be stacked, lofted, or separated, each student has a desk and chair, a dresser, a shelving unit and an armoire wardrobe unit. The furniture is uniquely designed to interchange to suit the individual student's tastes in personal decor.

Rooms also feature separate room-controlled heating and air conditioning units, cable TV, vertical window blinds, overhead lighting and tiled floors. Each room has high-speed Internet access. All rooms in Lyden are designed to be handicapped accessible.

Each wing of this beautifully designed residence hall includes convenient shower and restrooms, quiet study rooms, and comfortable conversation lounges. Students have full access to a kitchenette/vending area, fitness room, computer lab with Internet access and laundry facilities in the lower level of Lyden. A convenient parking area is also available adjacent to Lyden House.

## Cafaro House

Cafaro House is coed, housing 274 students. The facility, which opened fall 1995, houses participants in the University Scholars Program, BSMD program, and Honors College.

Enclosed suites rather than traditional rooms accommodate 4-18 residents, with individual rooms branching off each suite area to house two residents. One traditional hallway is located on the first floor. Each room has cable TV, and high-speed Internet access.

In addition to providing a variety of lounge and recreational spaces similar to Kilcawley and Lyden, this facility also has academic spaces such as a seminar room, computer lab, and music practice rooms.

## Wick House

Located on Wick Avenue next to the Arms Family Museum of Local History and near the Butler Institute of American Art. Wick House is a restored mansion that was at one time the home of the Wick family. This residence hall offers unique living spaces for 33 upperclass residents. Rooms vary in size and design, accommodating one to three residents, and several rooms

offer private bathrooms. Rooms are furnished with beds, desks, and wardrobes similar to those found in Lyden House.

Wick House provides a kitchenette and large lounge on the first floor and laundry facilities in the basement. Ample parking is available adjacent to the building.

## Weller House

Weller House is located along Wick Avenue next to Wick House. Weller House has also recently undergone a complete renovation and accommodates 17 graduate resident apartments.

Having opened in fall 1991, this facility offers apartment-style on-campus living, each unit having a full bathroom with tub and/or shower, a kitchen, high-speed internet access, cable TV, an electric range, refrigerator/freezer, garbage disposal, full size bed and dresser, and a dining table. Apartments vary in size and are designed to accommodate a single student as well as a couple with children.

Weller also offers students a community room and convenient laundry facilities on the lower level.

## University Courtyard Apartments

Established in 2003, University Courtyard Apartments is an added addition to the student housing community, of which the apartments are an ideal option for YSU students wishing to live on campus and still have all the comforts of home.

In 2010, Youngstown State University, obtained ownership of University Courtyard Apartments. The community is located in the Wick Oval area, just minutes away from the center of campus and adjacent to Bliss Hall, home of the College of Creative Arts and Communication. The community is comprised of one, two, and four bedroom apartments and each apartment comes equipped with an appliance package that includes a full size refrigerator, stove, microwave and dishwasher. In addition, the units are fully furnished and equipped with ceiling fans and mini-blinds. Residents can take advantage of the planned activities, computer labs, study lounge, fitness center and recreation area in the courtyard that includes a basketball and volleyball court and grills. The rent is all-inclusive, which means the residents pay one amount for everything including all utilities, Wi-Fi, high-speed internet access and basic cable TV, and charges are assessed through the students portal account. University Courtyard Apartments provide an ideal way to "study hard and to live easy."

## Christman Dining Commons

The Christman Dining Commons serves students with an on-campus resident meal plan or on a per-meal cash basis. The Commons is located adjacent to both Lyden House and Cafaro House and is easily accessible from Elm Street, Madison Avenue, and Custer Street.

This gracious single-floor dining facility architecturally complements Lyden and Cafaro Houses, seats 300 and will serve over 600 per meal.

The Commons offers a wide variety of menu options to campus residents, from self-serve cold foods, beverages, and snack selections to staff-served grille specialties and hot entrees.

Various meal plans are also available to those current students not living in University-owned facilities.

## Application for Housing

Applications are available online at the Housing and Residence Life (<http://housing.yosu.edu>) website.

In order to be accepted for University Housing, a student must first be admitted to the University. Space is allocated on a first-come first-served

basis. If you have not yet applied to the University, contact the Office of Admissions at (330) 941-2000.

## University Housing Partners

### Buechner Hall

Buechner Hall, a privately owned and operated women's residence hall, is located near the center of campus. Although this facility is not operated by University Housing, cooperation and regular communication ensure that the women residents are integrated into campus life.

Designed and built expressly for women, Buechner Hall is operated by the Buechner Foundation, a private, not-for-profit corporation, and is maintained by funds from the original bequest. The Foundation partially underwrites every resident's cost. Located on the YSU campus, Buechner Hall houses 72 women in single and double rooms. The air-conditioned rooms are completely furnished and are cleaned weekly by the housekeeping staff. The dining room provides 15 home-cooked meals a week and weekend cooking facilities are also available. The building has an elevator and sprinkler system, and laundry facilities on each floor. Staff and security guards provide maximum 24-hour security service. A beautiful and immaculately maintained building, Buechner Hall is conducive to a quiet study environment. It is located at 620 Bryson Street, Youngstown, OH 44502. Telephone: (330) 744-5361.

### Independent Living

Off-campus housing is an attractive option for many students. In the greater Youngstown area, there is a wide variety of apartments, houses, and rooms for rent at surprisingly reasonable rates. Much of this housing is within walking distance to campus so students without their own automobile are able to take advantage of it. Many students with transportation opt to live further from campus.

Whatever kind of housing you are interested in, please see options on our website at Housing and Residence Life (<http://housing.yosu.edu>).

## Lockers

Campus lockers are available in Bliss Hall, Moser Hall, and Cushwa Hall at a cost of \$25. A lock is provided by the university and is mandatory for the duration of use. The university assumes no responsibility for property stored in the locker, and all items must be removed at the end of each academic year. Details and rentals are available at the YSU Info & PC Lab located on upper level of Kilcawley Center or at (330) 941-3516.

## Student Activities

Youngstown State University offers a broad range of campus activities geared toward enriching and expanding the student experience beyond the classroom. Participating in student government, intramurals, student publications, art and music groups, and student organizations gives students opportunities to make new friends; meet people from backgrounds, cultures, and perspectives different from their own; develop leadership skills; and balance the demands of university life with the need for relaxation and recreation.

For more information visit the Student Activities (<http://cms.yosu.edu/administrative-offices/student-activities/student-activities>) page.

## Penguin Productions

Penguin Productions is a student group under the Division of Student Experience charged with assessing, initiating, implementing, and evaluating major events for almost 13,000 students on the campus of Youngstown State University.

Penguin Productions conducts campus-wide assessments of students' entertainment interests and identifies possible performers and venues. Performers such as Elton John, Korn, Sugarland, and Danity Kane have come

to campus or the downtown Covelli Centre. Penguin Productions plans Fall Fire Fest and Federal Frenzy, two campus traditions.

Working with Penguin Productions carries no academic credit or pay, but participants get a behind-the-scenes look at events planning, concert staging, ticket management, and other concert business, including meeting the performers.

For more information about upcoming events or becoming a Penguin Productions board member, please call (330) 941-3575.

## Student Organizations

There are over 200 student organizations ranging from academic and social awareness to cultural, Greek, and Student Government. Students are invited to take the first step and discover something that engages their interests. Student organization mailboxes are located in the Student Activities Office, Room 2082, Kilcawley Center.

The following is a partial list of the organizations available at YSU. A complete searchable listing of registered student organizations at YSU, is available on the Student Organization Directory (<http://cms.ysu.edu/administrative-offices/student-activities/student-organization-directory>) web page.

- African Student Union
- Alpha Kappa Alpha Sorority
- Alpha Phi Delta Fraternity
- Alpha Omicron Pi Sorority
- Alpha Xi Delta Sorority (AXD)
- American Institute of Chemical Engineers
- American Marketing Association
- American Society of Civil Engineers
- American Society of Mechanical Engineers
- Anthropology Colloquium
- Armed Forces Student Organization
- Black Student Union
- Bowling Club
- Campus Crusade for Christ
- Catholic Student Association
- Chi Alpha
- College Conservatives
- College Democrats
- Dana Flute Society
- Dance Club
- Dance Ensemble
- Delta Sigma Theta Sorority
- Delta Zeta Sorority
- Early Childhood Association (YSU ECA)
- Economics Club
- Enactus
- Environmental and Animal Rights Coalition
- Environmental Studies Society
- Exercise Science Club
- Food and Nutrition Students
- Film Club
- Golden Key National Honor Society
- Greek Campus Life
- Guitar Association
- Hospitality Management Society
- Ice Hockey Club
- Institute of Industrial Engineers

- Interfraternity Council
- Iota Phi Theta Fraternity
- Jazz Society
- Jewish Student Organization
- Lacrosse Club Team (Club Sports)
- NEOMED
- National Pan-Hellenic Council (NPHC)
- Ohio Collegiate Music Educators Association
- Orthodox Christian Fellowship
- Panhellenic Council
- Penguin Trombone Society
- Phi Alpha Theta (National Honor Society)
- Phi Kappa Phi (National Honor Society)
- Phi Sigma Rho Engineering Sorority
- Physical Education Club
- Rock Climbing Club
- Rookery Radio
- Rotaract
- Rugby
- Running Club
- Sigma Alpha Epsilon Fraternity (SAE)
- Sigma Chi Fraternity (SC)
- Sigma Tau Gamma Fraternity (STG)
- Skating Club
- Slavic Student Association
- Society of Human Resource Management
- Society of Women Engineers
- Sociology Club
- Spanish Club (Los Buenos Veciños)
- STEM Leadership Society
- Student American Dental Hygienists Association (SADHA)
- Student Athlete Advisory Committee (SAAC)
- Student Organization for Respiratory Care
- Student Physical Therapy Association
- Student Social Work Association
- Students In Fashion and Interiors
- Tau Kappa Epsilon Fraternity
- Theta Chi Fraternity Colony
- Urban Gaming Club
- Women's Lacrosse Club
- YSUnitysogie Society
- Zeta Tau Alpha Sorority
- Zeta Phi Beta Sorority

## Greek Life

Greek Life at YSU affords students the opportunity to gain leadership experience and develop a positive social outlet. There are 11 Interfraternity, National Pan-Hellenic Council, and Panhellenic groups from which to choose.

For more information visit the Greek Life (<http://cms.ysu.edu/administrative-offices/greek-life/greek-life>) page.

## Department of Campus Recreation - Andrews Student Recreation and Wellness Center

The Department of Campus Recreation is located in the Andrews Student Recreation and Wellness Center. This state-of-the art facility contains more

than 140 pieces of strength and conditioning equipment. Located near the free-weight and cardio area is the Center's impressive rock wall, at 53 feet Ohio's tallest. Volleyball, basketball, and other activities are situated within the multi-purpose sports forum, which contains four courts. The spacious aerobic studios are home to many group exercise classes and are adjacent to the 1/8-mile indoor track, both on the top floor of the facility.

The Andrews Center also includes a tranquil meditation studio, full-functioning locker rooms, and the Wellness Resource Center. In addition to the Andrews Student Recreation and Wellness Center, the Department supervises programs in Beeghly Physical Education Center, Stambaugh Stadium, and the outdoor complexes (Farmer's Field and Harrison Field).

Participants must have a valid YSU ID card to use the facilities, equipment, services, and programs offered by the Department of Campus Recreation.

The Department is one of the most popular places on campus to be employed. If you are interested in applying for a position, please register for the Semesterly job fair at the department's or complete the department application, including a completed cover letter and resumé, which can be found online at Campus Recreation (<http://cms.yosu.edu/administrative-offices/campus-recreation-and-wellness/campus-recreation>).

For additional information about the Department of Campus Recreation, please contact (330) 941-3488 or visit the Campus Recreation website. (<http://cms.yosu.edu/administrative-offices/campus-recreation-and-wellness/campus-recreation>)

## Campus Recreation Club Sports

The Club Sports program at Youngstown State University provides opportunities for students who desire a more in-depth sports experience than is provided in the Intramural and/or open recreation program. The focus of the Club Sports program blends the aspects of learning new skills, practicing with club members, and possibly competing with other clubs while continuing with your love of a particular sport way long after high school. It also provides a great opportunity to meet new people and become more involved with campus life at YSU. Broaden your college experience and create or join a Club Sport today. Don't see the club sport you want? Start your own. Contact Tessa Padilla in regards to starting your own team! Tessa Padilla at 330-941-2239 or by email at [tdpadilla@ysu.edu](mailto:tdpadilla@ysu.edu).

Current club sports include:

- Bass Fishing
- Bowling
- Equestrian
- Fencing
- Hip Hop Dance
- Ice Hockey
- Ice Skating
- Men's Lacrosse
- Men's Volleyball
- Paintball
- Racquetball
- Rock Climbing
- Running Club
- Soccer
- Trap Shooting
- Ultimate Frisbee
- Women's Lacrosse
- Women's Rugby
- Women's Volleyball
- Wrestling

## Student Government Association

The student body of Youngstown State University is represented by Student Government, which operates under constitutional powers granted by the University. The legislative branch of Student Government is composed of representatives from the six undergraduate colleges and the School of Graduate Studies and Research, in proportion to the enrollment of each. All meetings of student government representatives are open to the student body.

Student Government exercises the power to conduct student elections, to recommend students to serve as members of joint faculty-student committees, and to supervise programs financed from its operating budget.

Student Government selects nominees for the two student positions of the University Board of Trustees.

For more information visit the Student Government (<http://sga.yosu.edu>) page.

## The Jambar

The University supports two student publications that provide an avenue for students to express their literary and artistic talents. Policies and procedures concerning student publications are prepared, reviewed, and applied by the Student Publications Committee.

The *Jambar*, a newspaper published once a week, and *The Penguin Review*, a literary annual, are recognized student publications on campus.

## Theater and Dance

All students are encouraged to get involved in University Theater, Dance and Film productions and classes. Opportunities exist for students to perform on stage, work in tech and Design areas as well as participate in student film productions. Auditions, Classes, and productions are regularly scheduled throughout the academic year. Please check out our Facebook page "YSU Department of Theater and Dance" to find out about upcoming ways to get involved!

Membership in the Eta Phi chapter of Alpha Psi Omega, the country's largest and most active honorary dramatics society, is open to YSU students who distinguish themselves in both theater and scholarship. Membership in dance ensemble is done by audition.

Major University Theater productions are presented in Bliss Hall, the performing arts complex which contains Ford Theater, a 400-seat standard proscenium theater, and the Spotlight Theater. Besides accommodating major productions, the Spotlight Theater also serves as a laboratory for student directed plays, various workshop activities and classroom activities.

With an emphasis on "learning by doing," YSU theater and dance students apply classroom theories and techniques in numerous campus productions. An active guest-artist program has also brought them into working contact with noted practitioners from the professional world. Participation in The Kennedy Center American College Theater Festival and The American College Dance Festival offer undergraduate research opportunities to students.

For more information visit the Theater and Dance (<http://www.yosu.edu/academics/college-creative-arts-and-communication/theater-majors>) page.

## Music

Many campus musical ensembles are open to all students of the University. For these, see the Dana School of Music in the College of Creative Arts and Communication section of this *Bulletin*.

For more information visit Dana School of Music (<http://www.yosu.edu/academics/college-creative-arts-and-communication/dana-school-of-music>).

## Art

Student and faculty art exhibitions, including two annual graduating BFA exhibitions, are held in the John J. McDonough Museum of Art on the YSU campus. The McDonough Museum also exhibits work of nationally and internationally known artists. The Butler Institute of American Art (<http://butlerart.com>), a private institution located in the midst of the YSU campus, sponsors two annual competitive exhibitions, the area annual and the national mid-year, to which students are encouraged to submit work. The Judith Rae Solomon Gallery, located on the 2nd floor of the College of Creative Arts and Communication's Bliss Hall, is used throughout the year for various student and faculty exhibitions, in addition to exhibitions of visiting artists. The Student Project Gallery located in the lower addition of Bliss Hall, is a space dedicated to give students opportunities to exhibit their artwork.

The Student Art Association sponsors an annual exhibition of the work of Youngstown State University students. The work is displayed at the McDonough Museum of Art (<http://www.yzu.edu/mcdonough-museum>) during the month of April, with awards given from various donors. Other area venues also exhibit student work, such as The Oakland Center for the Arts, Trumbull Art Gallery, and the Art Outreach Gallery at the Eastwood Mall.

For more information visit the Department of Art (<http://artdept.yzu.edu>).

## Intercollegiate Athletics

Intercollegiate athletics are conducted at Youngstown State University to meet the needs and interests of the entire student body as spectators or participants in healthful amateur sports. Tryouts are open to any student who qualifies under the Youngstown State University, NCAA, and conference eligibility regulations. Men's teams compete in intercollegiate baseball, basketball, cross country, football, golf, tennis and track and field. Women's intercollegiate teams compete in basketball, bowling, cross country, golf, soccer, softball, swimming and diving, tennis, track and field and volleyball.

The University's intercollegiate athletic programs are governed by the National Collegiate Athletic Association (NCAA).

Students are encouraged to participate as athletes, cheerleaders, trainers, managers or scorekeepers in any of the varsity sports. Students who want to try out should contact the head coach of the sport of interest in either Beeghly Center or Stambaugh Stadium.

See the **YSU Athletics** website for more information.

## Honorary Organizations

Honorary organizations related to academic fields and departments recognize outstanding achievement by University students. Many of these organizations are local chapters of national honor societies, which provide national recognition and local scholarships.

For more information on honorary organizations in your area of academic concentration, contact the faculty department chairperson of that area, or the Student Activities Office (<http://cms.yzu.edu/administrative-offices/student-activities/student-activities>), second floor, Kilcawley Center.

- Alpha Epsilon Delta - Honorary Premedical Society
- Alpha Kappa Mu - Historically African-American Honor Society
- Alpha Lambda Delta - Freshman Honor Society
- Alpha Phi Sigma - Criminal Justice Honor Society
- Alpha Psi Omega - Drama Honorary
- Beta Alpha Psi - Accounting and Finance
- Beta Gamma Sigma - Business
- Chi Sigma Iota - Counseling Honorary
- Eta Sigma Gamma - Health Education Honorary
- Golden Key - National Honor Society for achievement in all undergraduate fields of study

- Kappa Delta Pi - Education Honor Society
- Kappa Omicron Nu - Human Ecology
- Lambda Pi Eta - Communications Studies
- National Society of Collegiate Scholars
- Omega Chi Epsilon - Chemical Engineering
- Omicron Delta Kappa - Leadership
- Order of Omega - Greek Letter Honor Society
- Phi Alpha Theta - History Honorary
- Phi Epsilon Kappa - Physical Education
- Phi Kappa Phi - National Honor Society for achievement in all fields
- Pi Mu Epsilon - Mathematics Honorary
- Pi Sigma Alpha - Political Science
- Psi Chi - Honorary Psychology
- Sigma Alpha Lambda - National Leadership and Honors Organization
- Sigma Pi Alpha - Human Resource Management
- Sigma Theta Tau - Nursing
- Society for Collegiate Journalists
- Tau Beta Pi - Engineering Honor Society
- Theta Alpha Kappa - Religious Studies & Theology
- Upsilon Pi Epsilon - Computing & Information Disciplines

## YSU Annual Awards

The University has established a series of awards to recognize excellence and to encourage participation in campus life. The awards are presented annually at the Student Activities Awards Banquet in the spring. Each year students, faculty, and staff are invited to nominate outstanding individuals and organizations for these prestigious awards. Selections will be made by a committee composed of students, faculty, and staff. Details regarding this program and the different awards listed below may be obtained from the Student Activities Office.

### Cardinal Newman Service Award

The Cardinal Newman Award is given to a graduating senior who, through service to the Newman Center, Catholic Student Association, the Youngstown State University as a whole, and to the wider community, has embodied Cardinal Newman's motto, thus allowing their own feats to be spoken to others in service and in recognition of the responsibility we each have to care for our neighbor.

### Constellation Award-Outstanding University-wide Programs

This award recognizes an outstanding University-wide event sponsored by a registered YSU student organization. The program must be distinguished by its inclusion of the University community and the program's contribution to the quality of student life.

### DeCrane-Houser Award

Scholarship for a student who has been active at the Newman Center. It is in honor of Arthur DeCrane, who was the first Catholic campus minister for Youngstown College and also for the late Judge William Houser, who was active in the Newman Center while going to school here. Judge Houser's family donated a large sum of money to make this scholarship available upon his death.

### Emerging Leaders Program

The Emerging Leader Program provides students with an opportunity to develop and refine the knowledge and skills essential to leadership. Students who complete the program receive designation on their official University transcript, cords for their academic regalia, and a YSU Leadership pin.

## Gillespie-Painter Award

To recognize outstanding achievement in support of the Division of Student Affairs at YSU beyond the scope of assigned duties. All members of the Division of Student Affairs are eligible for this award.

## The John J. Gocala Service Award

The John J. Gocala Service Award was established by the Student Government Association during the 2008-09 academic year to recognize the commitment and contributions of John J. Gocala during his tenure as YSU Police Chief.

The intent of the award is to recognize one individual within the university community who has gone above and continues to go above and beyond the call of duty to serve the first-class reputation and traditions of Youngstown State University.

The individual must truly work to preserve the best interests of the YSU campus and community.

## Kocinski Award

The Kocinski Award is given in honor of Marilyn Kocinski, who taught dance at YSU in the Department of Human Performance and Exercise Science from 1960 to 1983.

Her family was responsible for instituting the award in the late 1990s in her memory. The award is presented to a senior student who has played a significant role as a student leader in the YSU Dance Ensemble and who demonstrates academic integrity as well as artistry and creativity in the field of dance.

## Libra Award-Outstanding Advisor

The Libra Award is presented to the outstanding faculty/staff advisor of a registered student organization. The award is designed to recognize the contributions and commitment to furthering student leadership development made by advisors.

## Dr. Martin T. "Marty" Manning Award

The Martin T. "Marty" Manning Award, established during the 2010-2011 academic year by the Student Government Association, is in honor of the late Dr. Martin T. "Marty" Manning. The award is in recognition of the superior student mentoring of Dr. Manning.

The award is given to a full- or part-time student, administrator, faculty or staff member, or alumnus/a who has exemplified the student-mentoring capacity that Dr. Manning so consistently displayed throughout his Youngstown State University career.

## Dr. Charles A. McBriarty Award

This award was established by Student Government during the 1992-93 school year to recognize and remember the commitment and contributions to students and student services by Dr. Charles McBriarty during his tenure as Vice President for Student Affairs. Its intent is to recognize individuals within the university community who have a reputation for being exceptionally student-oriented and who possess the traits, ethics, and friendly style exhibited by Dr. McBriarty.

## Edna K. McDonald Cultural Awareness Award

Award to recognize an outstanding individual who has made a lasting contribution to encourage and increase awareness of cultural diversity at Youngstown State University. All faculty, staff, students, and members of the extended YSU community are eligible for the award.

## Mentor of the Year

This award honors the faculty or staff mentor who has contributed the most during the past year to the development of a YSU student.

## Multicultural Student Services Leadership Award

The Multicultural Student Services Leadership Award recognizes up to two minority students served through the Center for Student Progress who have achieved academic success and demonstrated effective leadership in promoting cultural awareness to the campus and community.

## Nova Award-Outstanding New Student Organization

Recognizes a newly registered student organization exhibiting initiative in organizational development and strong potential to contribute to the quality of life as a recognized student organization at Youngstown State University.

## Orion Award-Outstanding Student Organization

The Orion Award recognizes an exceptional student organization for its outstanding leadership and service to the University community during the current academic year.

## President Cynthia E. Anderson Lifetime Achievement Award

Awarded to a full-time student who has exhibited an extended commitment and dedication to serving the student body through various positions on Student Government.

## Sirius Award-Student Employee of the Year

This award recognizes student employees who have made outstanding contributions to their employers and demonstrated skills and commitment above and beyond expectations.

## Smith-Murphy Award

The award shall be given to one full-time faculty member each year. The recipient shall possess the qualities of Lester Smith and Gratia Murphy and display a genuine concern for the well-being and success of the students he or she teaches.

## Student Government Spirit Award

Given by Student Government to a member of the campus or Youngstown metropolitan community who has displayed enthusiasm for the work of YSU Student Government over the past academic year.

## Student Service Award

To recognize an outstanding individual who has demonstrated exceptional commitment to the students of YSU. All faculty, staff (excluding the Divisions of Enrollment Planning and Management, Student Experience, and Student Success), and members of the University community are eligible for this award.

## Gina Tenney Memorial Scholarship

Gina Tenney was one of YSU's best and most dedicated students. Before her tragic death in 1985, Gina had been actively involved in campus life and had achieved excellent academic standing. She served in Student Government and was a student assistant in the Student Services Office. She was also active in the University Theater Department. In honor of Gina's memory, the Gina Tenney Memorial Scholarship Fund was established in January of 1986 by the YSU Student Government.

## YSU Pin

Begun more than 60 years ago, in 1948, the YSU pin recognizes up to five graduating seniors who have achieved academic success and demonstrated outstanding leadership, motivation, and creativity in University and community activities.

## The Luke N. Zaccaro Award

The Luke Zaccaro Award is given to a YSU student who may be a member of Student Government. The individual should have done something exceptional

for the university, Student Government, or fellow students during the course of the current year.

## Other Awards and Prizes

### YSU Leadership Scholarship

The YSU Leadership Scholarship recognizes outstanding students for their contribution to and leadership in campus activities. Each year up to seven students are awarded \$600 for Fall tuition and fees.

### The Greek Campus Life Awards for Scholarship

Given annually to the fraternity and sorority chapter with the highest aggregate point index and to the member of a fraternity with the highest individual point index, based on the academic work of the previous two semesters. The awards are presented during the spring semester at the annual Greek Sing competition.

### Who's Who Among Students in American Universities and Colleges

A list of upper-class students and graduate students achieving outstanding academic and curricular records.

## Student Conduct

### Student Conduct

Students at YSU have an obligation to conduct themselves in a manner that is compatible with the University's purpose as an institution of higher education. The policies and regulations in *The Student Code of Conduct* have been established to ensure a positive educational experience for every student. Each student is expected to be fully acquainted with all published policies, procedures, and regulations of the University and is held responsible for compliance with them. Therefore, all students should take time to familiarize themselves with *The Student Code of Conduct*, residence hall policies, university lease agreements, student organization policies, and other related policies to ensure they are aware of both the expectations of them and the rights afforded to them as a member of the university community.

Students who are believed to be in violation of *The Student Code of Conduct* or other university policies will be referred to the Office of Student Conduct for a conference and possible hearing. The student conduct process at YSU adheres to procedural due process and is intended to be part of the larger university educational process. Therefore, outcomes of student conduct hearings wherein students are found responsible for violations of *The Student Code of Conduct* may include educational sanctions, fines, status changes, restriction of privileges, and even expulsion from the University.

In the event that a member of the university community needs to report a potential violation of *The Student Code of Conduct*, they can contact a staff member from Housing & Residence Life, University Courtyards, Student Experience, Student Conduct, or Youngstown State University Police Department. Additionally, the YSUPD website has a Confidential Tip Form that can be used to provide anonymity to the reporting person.

More information and the full text of *The Student Code of Conduct* can be found on the Student Conduct website (<http://cms.ysu.edu/administrative-offices/student-conduct/welcome-student-conduct>).

## Academic Resources

### The Writing Center

The YSU Writing Center is operated by the Department of English to provide individualized instruction in writing for all students. The goal of the Center is to help clients become more independent, confident, and successful writers.

The Writing Center staff includes faculty, graduate assistants or interns, undergraduates, and a full-time coordinator.

Services include one-to-one feedback on any writing task, at any stage, for any course, as well as peer-group reviews, workshops, and access to instructional handouts. The services offered by the YSU Writing Center are free of charge to all registered YSU students.

The Writing Center is located on the lower level of Maag Library, Room 171. Writing Center hours are Monday through Thursday 9 a.m. – 5 p.m., and Friday 10 a.m. – 1 p.m. Students can schedule appointments through WOnline (<https://ysu.mywconline.com>). Consultants are also available for walk-in sessions on a first-come, first-served basis. Evening, weekend, and satellite hours at Stambaugh Stadium and the Veterans Resource Center vary by semester.

For more information about the Writing Center, please call (330) 941-3055, visit the Writing Center (<http://cms.ysu.edu/writing-center/writing-center>) website or e-mail [wcenter@ysu.edu](mailto:wcenter@ysu.edu). Appointments outside regular hours, online advice for distance learning students, and extended sessions for papers longer than 10 pages (i.e. capstone projects) can also be arranged.

## Mathematics Assistance Center

The Mathematics Assistance Center (MAC) is an academic support service integrated with the Department of Mathematics and Statistics. Its mission is to offer YSU students assistance in the strengthening of their fundamental mathematics skills necessary for success in the study of mathematics. This mission is accomplished through services provided such as one-on-one or group tutoring and the provision of resource materials for independent study.

The MAC has many services available to currently enrolled YSU students. The main service, tutoring, is provided to students currently enrolled in mathematics courses ranging from elementary algebraic modeling through calculus. In addition, other services such as computer-assisted instruction, video-based instruction, mathematics course solutions manuals, some mathematics "hand-outs" for selected topics, and specific workshops (offered as needed and as resources permit) are available to any currently enrolled YSU student.

The Mathematics Assistance Center (MAC) operates on a **walk-in** basis during business hours (listed below) at its location in Room 408, Lincoln Building. The staff of the MAC consists of a coordinator, assistant to the coordinator, graduate and undergraduate tutors, and student office assistants.

For any additional information, call the Mathematics Assistance Center (MAC) at (330) 941- 3274. Hours for fall and spring semesters: Monday through Thursday, 9:00 a.m. to 5:00 p.m., and Friday, 9:00 a.m. to 3:00 p.m. For summer hours, call the MAC. For more information, visit the Mathematics Assistance Center (<http://cms.ysu.edu/mathematics-assistance-center/mathematics-assistance-center-mac>) website.

## Reading and Study Skills Center

The Reading and Study Skills Center provides individualized and course instruction in improving reading rate and comprehension as well as enhancing strategies for studying at the college level. Staffed by instructors, graduate students, undergraduate peer tutors, an administrative assistant, and a coordinator, the Reading and Study Skills Center primarily maintains classes and tutoring sessions for RSS 1510A Advanced College Success Skills, RSS 1510B Basic College Success Skills and RSS 1510C STEM Advanced College Success Skills – courses students may be mandated to take based on the COMPASS® Reading Test (CRT). RSS 1570 Approaches to Professional Assessments and RSS 1571 Approaches to Professional Assessments/ Applications are currently designed to assist students preparing for the CORE. Only students who are taking or completed their college level English and math requirements may register for this course. Additional services offered by the Reading and Study Skills Center include individual tutoring, college success workshops, and assistance with preparation for standardized tests such as APK, MCAT and GRE. Students may call or visit our website to schedule an

appointment for individual tutoring or to view the semester calendar of free workshops.

The workshops and individualized tutoring are free of charge to all registered YSU students. The Center is located in the lower level of Maag Library. For more information, contact the Reading and Study Skills Center, telephone (330) 941-3099, e-mail [rdgstudyskillsctr@ysu.edu](mailto:rdgstudyskillsctr@ysu.edu), or visit the Reading and Study Skills (<http://cms.ysu.edu/administrative-offices/reading-and-study-skills/reading-and-study-skills-center>) website. Follow us on Twitter for workshop announcements and tips: @YSU\_StudyHelp.

## Maag Library

The six-story William F. Maag Library is an attractive, comfortable, yet technically advanced environment for study and research at the center of the YSU campus. Maag Library provides comprehensive information services as well as access to information in print, analog, micro and digital formats. A professional staff provides in-depth assistance in a wide variety of disciplines. Maag Library is open for on-site use more than 80 hours per week during the term. Virtual access to library services, the on-line catalog, and direct digital information resources is available via MaagNet, providing constant access from home or office.

Maag Library is a member of OhioLINK, a statewide library and information network linking the libraries of all of Ohio's public and private colleges and universities. OhioLINK provides straightforward, easy access to a combined collection of over 39 million items. The vast majority of this state-wide collection is open to patron-initiated borrowing with rapid delivery to any member site. The network also provides access to over 100 indexing and abstracting databases in a wide variety of disciplines and direct access to the full text of over 8,000 scholarly journals. OhioLink currently provides direct Internet access to a wide variety of audio, visual, and primary-source materials.

Maag Library itself offers instructional and research materials in books, periodicals, microforms, CD/DVD, and sound recordings to a combined catalog of over 1.5 million records. These holdings number close to 100,000 government documents (with access to millions on-line), 700,000 bound volumes, and 900,000 microforms. Periodicals, microforms, and micro-readers are housed on the third floor. Copiers are available for self-service. User service points such as reference and circulation, as well as most staff offices, are conveniently located on the Library's entrance floor. The book collection is in open stacks, with split-level design between stack and reading areas. Study rooms and carrels are located on five of the floors.

Maag Library houses contemporary computer workstations, connected to a high-speed network, located throughout the building. The fourth floor of Maag houses a general-purpose productivity computer lab that is open to faculty and students as many hours as the library is open. Moreover, laptop computers with wireless network connections can be checked out for use anywhere in the library. In addition, any YSU faculty, staff or student with a wireless device is able to connect to the Maag wireless hubs.

Two group study rooms on the fourth floor offer unique accommodations including multiple presentation viewing for laptops and improved wireless connections. Rooms can be checked out at the circulation desk.

In 2004, Maag Library initiated the development of the Archives and Special Collections unit. Located on the fifth floor of Maag, this unit not only collects and preserves documents detailing the history of YSU and its environs but also is developing the capacity to provide searchable Internet access to its entire collection. The Maag Multi-Media Center on the third floor contains over 20,000 phonograph recordings, audio and video tapes as well as audio and data disks. The collection is strong in recordings of opera, jazz, and the collected works of J.S. Bach. A significant effort is currently underway to digitize most of the collection's analog recordings.

The Curriculum Resource Center (CRC) located in the Beeghly Hall College of Education is also a vibrant part of Maag Library, offering curriculum materials and support for students in education.

The lower level of Maag Library houses the Writing Center, The Reading and Study Skills Center, the English Language Institute, and the Center for Communication Excellence.

## Information Technology Services

YSU's Information Technology Services (ITS) mission is to provide services to meet the technology needs of students, faculty, and staff. ITS includes Computer Services, Media and Academic Computing, ITS Operations, Website Management, and Network Telecommunications and Security.

The ITS Tech Desk is the primary point of contact for technology customer support needs and is located on the fourth floor of Maag Library. Support is provided by phone and in person. The Tech Desk provides first-level technical support of all the YSU computer systems, telephones, and assists faculty, staff, and students with password-related problems, helps students with installing "academic-related" software, and configuring their devices to connect to the YSU wired and wireless networks. More information is available at the Tech Desk (<http://cms.ysu.edu/administrative-offices/media-and-academic-computing/tech-desk>) website.

Overall, ITS provides:

- Administrative and Student systems including registration and finance
- Desktop technology support in labs and offices
- Classroom technology support
- Wired and Wireless networking and security
- Telephony technology support (desktop and cellular)
- Data Center Operations
- Website technology support
- Electronics repair
- Academic technology support

More than 4,000 online technology devices, including personal computers, printers, and multimedia systems are located on campus. Personal computers are available on campus for instruction and research. Currently, more than 80 labs exist within the 14 campus buildings. This is a comprehensive list of all computer labs and the hardware and software they contain: <http://mac.ysu.edu/~maclabs>. Selected classrooms are equipped to facilitate broadcast quality, full-motion video distribution, and distance-learning opportunities. The YSU Network provides faculty, staff, and students the opportunity to access networks and current-generation computer hardware and software via a high-speed state-of-the-art network infrastructure. A Virtual Private Network (VPN) is provided for remote access to campus. A campus-wide wireless network provides mobility for students and employees. AT&T Wi-Fi services are also available for visitors.

Detailed information on technology support and services is provided on the ITS (<http://cms.ysu.edu/administrative-offices/information-technology-services/its-home>) website.

## Laboratories

In addition to the Computer Center, Youngstown State University offers students a wide range of up-to-date laboratories and equipment across campus.

Located in DeBartolo Hall, the **Language Learning Resource Center** is a state-of-the-art foreign language lab facility designed for both classroom use and individual study in second-language acquisition and the study of foreign languages, literatures, and cultures.

The LLRC audio lab was completely renovated and remodeled in 2009. The new audio lab carrels are equipped with the most current digital Sanako hardware and software for language learning. The audio lab, which is reserved for foreign language study, has 30 student stations each equipped with Dell personal computers with CD-RW/DVD-ROM combo drives, Windows 7, and Tandberg Educational headphones. With Sanako, a digital audio or video file



may be played back from a program track while students simultaneously record their response on the student track. The LLRC computer lab has an additional 50 student Dell personal computers and is an open lab when not in use for a class. Student assistants are hired to assist with the various types of equipment and to tutor the languages taught at YSU.

In the **psychology laboratories**, located in the basement of DeBartolo Hall, students can learn basic techniques of experimental psychology, child psychology, social psychology, and survey research. Equipment includes an electromagnetically isolated room, animal housing areas, a child observation room, equipment for the control of animal behavior, and various physiological recording devices.

The **anthropology and archaeology laboratory** has a wide range of specialized equipment including:

- standards for the parameters of a biological profile (age, sex, ancestry and stature)
- statistical analysis packages for biological anthropology research
- anthropometry instruments
- archaeology research tools

The **Department of English has eight computer labs** in DeBartolo Hall primarily for the use of students enrolled in English composition and professional and technical writing classes, one lab for journalism classes in Fedor Hall, and one lab for composition classes and Writing Center use in Maag Library.

Computer facilities in the new **Williamson Hall** include three networked computer labs, a Financial Service Lab, and Professional Sales Lab. Specialized software used in business courses is also available.

In **Cushwa Hall**, laboratories are provided for radio broadcasting, physical therapy, dental hygiene, microbiology, nursing, criminal justice, respiratory care, human ecology, medical laboratory technology and science, clothing and textiles, medical assisting, emergency medical services, and polysomnography.

Laboratories in **Moser Hall** are described in the College of Science, Technology, Engineering, and Mathematics section of the catalog.

For more information, visit the **Campus Computer Labs**.

## YSU Bookstore

The YSU Bookstore, located at its new location at 300 Fifth Avenue, is YSU's only official bookstore. The YSU Bookstore is your source for all of your course needs. We know textbooks play a huge role in your success so we work hard to make them affordable!

Take advantage of the services the YSU Bookstore has to offer to help you save on textbooks: free reservation (pick-up) service for textbooks, rentals on just about every textbook, discounted used textbooks, price matching to Amazon.com and BarnesandNoble.com (some exclusions do apply), eBooks, and a book buyback program that pays you cash for books!

You will receive assistance from our recognizable and friendly staff with over 100+ years of combined bookstore experience. The YSU Bookstore is not just about textbooks – it offers a wide array of quality YSU official apparel, gifts, supplies, and a brand new cafe!

Students, alumni, and friends can shop anywhere anytime, including from their mobile phones.

For more information, visit the YSU Bookstore (<http://ysu.bncollege.com/webapp/wcs/stores/servlet/BNCBHomePage?storeId=88176&catalogId=10001&langId=-1>) website, or download our app (My College Bookstore in both the App Store and Google Play).

## Comprehensive Testing Center

The Comprehensive Testing Center is a part of the Division of Student Affairs. Among the testing services provided are administrations of national admission and certification examination. These include:

- American College Test (ACT)
- Graduate Record Exam (GRE) Subject Test
- Miller Analogies Test (MAT)
- Law School Admissions Test (LSAT)
- PRAXIS exam

Additionally, YSU's computer-based placement testing is administered through this office. Placement tests are administered year-round in both group and individual sessions.

General and vocational-interest examinations for guidance purposes are available on campus. Current YSU students wishing to take such tests may make arrangements with the University's Career and Counseling Center. For more information visit the Testing Center (<http://cms.ysu.edu/administrative-offices/testing-center/testing-center>) website.

## Center for International Studies and Programs (CISP)

The Center for International Studies and Programs (C I S P) (<http://cms.ysu.edu/administrative-offices/center-international-studies-and-programs/cisp-home>) is an integral part of the Division of Academic Affairs and is responsible for coordinating the international dimensions of the university, including international student and faculty services, study abroad and exchange programs, and the English Language Institute. For more information on studying abroad and about the English Language Institute (<http://cms.ysu.edu/administrative-offices/english-language-institute/eli-home>), visit the website.

## International Student and Faculty Services

CISP coordinates international student recruitment and admission, the international student health insurance program, and the Stephen and Brigitta Hanzeley International Student Scholarship. The CISP also provides immigration-related services for international students, faculty, and staff. For more information about requirements for enrolled international students, see Requirements for Nonimmigrant Students (located under the Credit Hours/Class Standing/Majors section of the catalog).

## International Student Association (ISA)

Originally founded in 1958 as the International Student Federation, the purpose of ISA is:

- To promote positive interactions among U.S. American and International students;
- To increase awareness of international cultures at Youngstown State University and in the Youngstown community;
- To be a place where international students can find common ground; and
- To support international students at Youngstown State University.

## Campus Safety

### University Police Department

Youngstown State University maintains a well-trained and well-equipped campus police department. The department is located in Clingan Waddell Hall at the corner of Fifth Ave. and Wood St.

The staff consists of 26 sworn full time police officers, 70 intermittent sworn police officers, and five civilian support staff. All sworn police officers are trained and certified by the Ohio Peace Officer Training Academy and have full police powers. The department is a community-service, technology-efficient law enforcement agency. The staff is supported by a sophisticated communication system, closed circuit television, well-equipped police vehicles, and a computer-based record-keeping system.

The training of the departmental personnel is ongoing, and crime prevention is a departmental priority. During the academic year, various University organizations sponsor educational programs that feature YSU police officers speaking to students and employees about personal safety, awareness, security, rape/acquaintance rape, sexual-assault and prevention, as well as the prevention of burglary and vandalism.

The Youngstown State University Police Department has mutual aid agreements with the Youngstown City Police Department, the Mahoning County Sheriff's Department, and a majority of other police Departments in Mahoning County and with other state universities in Ohio. The agreements provide for the Youngstown State University Police Department to exercise the same law enforcement authority when engaged in law enforcement functions as their partners in the various mutual aid agreements, in order to provide a safe and secure environment for the Youngstown State University Community. Certain officers from the department are also members of the Mahoning Valley Law Enforcement Task Force as well as the Mahoning County OVI Task Force. These task forces make available additional resources to the YSU Police Department.

The University Police Department is open 24 hours a day. The general business telephone number is (330) 941-3527. The emergency service number is extension 911 dialed through any campus extension. Campus emergency telephones are located throughout campus that will connect you directly to the YSU Police Department in the event of an emergency. 911 calls made from cell phones are answered by the City of Youngstown Communications Center. If a 911 call is made on a cell phone, it is important for the person to tell the call taker they are calling from the YSU Campus. All students are encouraged to program the YSU Police Department phone number (330) 941-3527 into their cell phones for immediate contact with a YSU Police Dispatcher when a campus phone is not available or convenient.

## Campus Safety Statistics

Youngstown State University has an outstanding record of safety on campus. For a detailed description of campus safety measures and FBI Uniform Crime Report statistics, see the publication *Annual Campus Safety and Fire Report* available from YSU Police, the Vice President for Student Affairs, or from the campus crime-prevention boards located in all campus buildings. Statistics collected by the department on crimes occurring on or near campus are submitted to the U.S. Department of Education annually in compliance with the The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act.

**Campus Crime Alerts, as well as other information regarding campus safety, can be viewed at the University Police Department website.** (<http://cms.yosu.edu/administrative-offices/police/ysu-police>)

## Emergency Notification System

The University has in place an emergency notification system that instantly reaches cell phones and other mobile devices when an urgent campus situation needs to be communicated. In the event of an emergency, a text message is sent to the mobile number and/or email registered with the system. Students must register at the YSU Alert Notification System website to receive emergency notifications. Parents and family of students may also sign up at the same website to receive alerts.

## Student Security Service (SSS)

SSS is a free service provided by specially trained YSU student employees who will accompany students, faculty, and staff safely anywhere on campus.

During the hours of operation, you can be escorted to the near North Side if an officer is also available to assist with the escort. Student Security Service aides are available Monday through Thursday from 7:00 a.m. to 11:00 p.m., and on Friday from 7:00 a.m. to 8:00 p.m., every day school is in session. The exception is summer semester and during breaks, when escorts are available from 7:00 am to 6:00 p.m. Monday through Friday. Those with disabilities who need assistance are encouraged to make special arrangements to be safely escorted to any location on campus, day or night. Call (330) 941-1515 for more information or to schedule an escort. After hours or on holidays and weekends, call the YSU Police Department at (330) 941-3527 if you need assistance.

## Parking Services

Parking for students is available close to all campus buildings. Students assessed a transportation fee may order a semester parking permit at no additional charge. Students with the transportation fee must order their parking permit online through the MyYSU Portal. Students registered for fewer than six credit hours may opt into the transportation fee by ordering a semester parking permit through the MyYSU Portal or purchase a daily parking permit. Valid YSU parking permits are required at all times in all YSU parking lots and decks.

Parking permits are required at all times in all lots and spaces on the YSU campus.

Parking areas are designated as follows:

M-Mixed Parking (faculty, staff, and students)

R-Resident Parking

F-Faculty/Staff Parking

S-Student Parking

Parking facilities for students include two parking decks and surface lots. Although some lots are designated for faculty/staff parking during the day, after 5 p.m. daily, most F-lots become mixed (except the F-1 lot on University Plaza).

Street parking is under the jurisdiction of the city of Youngstown. Tickets received for street parking violations must be appealed to the city. For more information, call the Parking Office at (330) 941-3546.

The current parking regulations can be found on the YSU Parking (<http://cms.yosu.edu/administrative-offices/parking-services/parking-services>) web page.

For information on registration of vehicles and applicable fees, see the Tuition, Fees, and Charges section of this catalog.

## Motorists' Assistance Program

Parking Services offers on-campus help with jump starts and lockouts to anyone with a valid YSU parking permit. The MAP will also lend out lug wrenches, jack stands, and gas cans. To contact the MAP program and shuttle service, call (330) 941-3051 or stop at any staffed parking booth.

## Disability Parking

All students who wish to utilize YSU handicap parking must bring their valid state handicap registration to Parking Services in order to receive a handicap sticker. Once the sticker is applied to your permit, you may utilize all handicap parking on campus.

If a handicap permit registered to someone other than the YSU parking permit holder is used in conjunction with the YSU parking permit, it is invalid for parking in handicap spaces on campus.

## University Events

The office of University Events creates, coordinates, and/or assists with university events on campus and in the community. University Events fashions and implements a standard "University Look" to carry across all events to uphold the exacting standards of YSU and to ensure all events exhibit the same level of quality that envisions YSU's dedication to tradition and excellence. The mission of the office is to communicate and visualize YSU's message, motivation, and image in the best way possible to internal and external audiences in order to build campus and community spirit and highlight all that the University has to offer.

University Events is charged with coordinating and implementing major university events. Annually, these include commencement, convocations, graduation, the faculty and staff awards banquet, the Canfield Fair, Friend of the University, Youngstown Day, and various lecture series. University Events is also assigned unique one-time events such as political and dignitary visits, residential installations, partnering community, campus, faculty, and athletic events.

A remaining aspect of University Events is assisting campus colleges, departments, and programs with their events when requested. Under this realm, University Events institutes the University Look and helps with event planning, logistics, and day of support when needed.

## Alumni Engagement

The Office of Alumni Engagement serves a constituency of more than 100,000 YSU alumni by developing and maintaining lifelong involvement between the University and its alumni as well as by providing a strong force for the advancement and support of the University by its alumni. The Office of Alumni Engagement strives to strengthen relationships with alumni, students, and University friends while upholding academic traditions and University vision. The primary objectives of Alumni Engagement are:

- To foster and promote the influence, welfare, and reputation of Youngstown State University
- To strengthen the position of the University in the community, region, and nation
- To establish, promote, and coordinate alumni groups and other University activities that support lifelong relationships between the university and its alumni
- To encourage and promote Alumni Society membership, volunteerism, and philanthropy by its alumni for the benefit of the University

For more information, visit Alumni Engagement (<http://ysu.edu/alumni>).

## Campus Facilities

### Campus Development

During its earlier years, the institution had a number of homes. Starting in the old Central YMCA building, it occupied various sites on Wick Avenue until the completion of Jones Hall in 1931. Additional buildings have been constructed and nearby properties converted to University use so that today the campus extends through most of an area five blocks long and four blocks wide, covering almost 150 acres. The University also owns 118.4 acres in Hartford Township.

### Stambaugh Stadium

The long-time home of the YSU Football program, the Arnold D. Stambaugh Stadium complex is one of the top FCS facilities in the country. The Penguins play all their home games on Beede Field, which features a state-of-the-art artificial-turf surface. The Stadium itself has a seating capacity of 20,630 and has a loge complex that houses 26 individual suites. The building is the location of the Jermaine Hopkins Academic Center, the Athletics Strength and Conditioning Complex, Athletic Training Room, Athletic Ticket Office, ROTC,

a travel agency, racquetball courts, three full-length basketball courts, and numerous athletics offices. The locker rooms for the softball, soccer, baseball, and football programs are also housed in the building.

Atop the stadium and overlooking the city of Youngstown is the DeBartolo Stadium Club. The club provides meeting and dinner/party seating for more than 200 guests and is available to campus and community organizations or individuals. For reservation information, please contact the Athletic Department at (330) 941-2385.

### Beeghly Physical Education Center

The longest-standing on-campus athletics facility is the Beeghly Physical Education Center. The facility, which was first used in 1972, is home to the basketball, volleyball, and swimming and diving programs. The Department of Kinesiology and Sport Science, the basketball programs offices, and many YSU athletic teams are located in the building. The Beeghly Center court is named after longtime basketball coach Dom Rosselli. The arena has a seating capacity of more than 6,000 and serves as the home court for the volleyball and basketball teams. The natatorium features four diving platforms and an impressive swimming pool. Also in the new-look building is the Coaches Court, a room used by the YSU Penguin Club. Additionally, Beeghly houses faculty offices, 10 classrooms including laboratories for research and kinesiology, physical education for handicapped, a dance studio, a rifle range, and a fitness center.

### YSU Softball Complex

The Youngstown State Softball Complex opened in the spring of 2014 and provides a full-time on-campus home for the Penguins. The facility is located on the west side of campus west of Stambaugh Stadium and just south of Farmers National Bank Field. The lighted complex has access to concessions and restrooms and has seating for more than 200 spectators.

### WATTS

The Watson and Tressel Training Site opened in the fall of 2011. One of the more eye-popping buildings on campus, the WATTS is an indoor athletic facility containing a 300-meter competition track, a full-length football field, batting cages, a putting green, protective netting, and locker room facilities. Built at a cost of nearly \$14 million, this facility allows for year-round training for all athletic programs, as well as a competition site for the track and field teams. Students are permitted in the facility at most times, the WATTS is open for public use in the evening during the winter.

### Farmers National Bank Field

YSU's soccer and track and field programs call the brand new Farmers National Bank Field, located on the west end of campus across from Stambaugh Stadium, home. The full-length soccer field and eight-lane 400-meter NCAA regulated track is one of the best in the region. The facility opened in the fall of 2013 and is utilized by the campus recreation department for intramurals throughout the year.

### YSU Tennis Courts

The area between Stambaugh Stadium and the WATTS is the location of the YSU Tennis Courts. The tennis facility features 10 lighted hard-surfaced courts that are used for practice and competition.

### Andrews Student Recreation and Wellness Center

The Department of Campus Recreation is located in the Andrews Student Recreation and Wellness Center. This state-of-the-art facility contains more than 140 pieces of strength and conditioning equipment. Located near the free-weight and cardio area is the Center's impressive rock wall, at 53 feet Ohio's tallest. Volleyball, basketball, and other activities are situated within the multi-purpose sports forum, which contains four courts. The spacious aerobic

studios are home to many group exercise classes and are adjacent to the 1/8-mile indoor track, both on the top floor of the facility.

The Andrews Center also includes a tranquil meditation studio, full-functioning locker rooms, and the Wellness Resource Center. In addition to the Andrews Student Recreation and Wellness Center, the Department supervises programs in Beeghly Physical Education Center, Stambaugh Stadium, and the outdoor complex.

Participants must have a valid YSU ID card to use the facilities, equipment, services, and programs offered by the Department of Campus Recreation.

The Department is one of the most popular places on campus to be employed. If you are interested in applying for a position, complete the department application found online at the Campus Recreation (<http://cms.ysu.edu/administrative-offices/campus-recreation-and-wellness/campus-recreation>) website. Submit a cover letter and resumé to the Department of Campus Recreation administration office, located in the Andrews Student Recreation and Wellness Center.

For additional information about the Department of Campus Recreation, please contact (330) 941-3488 or visit Campus Recreation (<http://cms.ysu.edu/administrative-offices/campus-recreation-and-wellness/campus-recreation>).

## Off-Campus Athletics Facilities

While Youngstown State has some impressive on-campus facilities, programs still utilize areas off campus for events and competition. The baseball program plays all home games at Eastwood Field in Niles. Eastwood Field, a 6,000-plus seat stadium, is home to the Cleveland Indians' short-season Class A affiliate. The golf programs call Mill Creek Park's course its official home, but practice at various courses throughout the area. During the winter portion of its campaign, the tennis programs utilize the Boardman Tennis Center. The BTC features 10 indoor courts for all-year use.

## Beeghly Hall

The four-story, 96,600-square-foot Beeghly Hall opened in the fall of 1998 to serve as the College of Education building.

On the main floor are the main north/south entrance and access, dean's suite, Wilcox Curriculum Resource Center, Child Study Center, and the 400-seat multi-purpose and multi-media Mckay Auditorium.

The Beeghly College of Education building includes:

- interactive distance-learning classroom
- classroom of the future
- Center for Teaching and Learning Technology
- Macintosh- and Windows-based computer labs
- Curriculum Resource Center
- counseling clinic
- child-study center

## Bliss Hall

Housing the College of Creative Arts and Communication, Bliss Hall, completed in 1977, was named in memory of William E. Bliss, a prominent area industrialist. Its facilities include:

- the 390-fixed seat Ford Theater, named for the Ford family
- the 248-seat Bliss Recital Hall
- an experimental theatre with flexible seating for up to 250
- 80 music practice rooms equipped with Steinway studio or grand pianos
- a Schlicker performance organ and two Flentrop practice organs
- 30 faculty office-studios which can be used for music instruction
- a band/orchestra room with a library

- a photography studio with enlargers
- a metals studio
- fully equipped drawing, printmaking, sculpture, and painting studios
- a MIDI/graphics computer lab
- a video editing suite
- a Mac-based graphic design laboratory with dye-sublimation printer
- ceramics studios with gas, electric, raku, and salt kilns
- a complete shop with heavy equipment for working in three-dimensional design
- art faculty office-studios
- a student lounge/art gallery
- conference and seminar rooms

Bliss Hall has recently seen major renovations to administrative offices. A new jazz rehearsal room, video production studios, and upgrades to art and sculpture areas were part of same renovation project. Opened in Fall 2005, a painting and sculpture addition included a foundry and metal fabrication, wood shop, sculpture and painting labs, offices, a 3D visualization lab, and an exterior work court.

## Cushwa Hall

Opened in 1976, this structure houses the Bitonte College of Health and Human Services, as well as Media and Academic Computing, the Peace Officer Training Academy, and Janitorial Services and Recycling. One of the largest buildings on campus, it contains 27 classrooms, 44 laboratories, 173 offices, and two lecture halls. In summer of 2013, the building underwent a \$2.2 million renovation. Various medical artifacts from the Rose Melnick Medical Museum are currently displayed throughout Cushwa Hall as well.

## DeBartolo Hall

First occupied in 1978, DeBartolo Hall houses the departments of Economics, Philosophy and Religious Studies, Political and Social Science, Psychology, Sociology and Anthropology, and the Africana studies and women's studies programs. Also housed in DeBartolo Hall is the Center for Peace and Conflict Studies. In this six-story structure are more than 165 offices for faculty and staff, five student lounges and study areas, 15 classrooms, 15 laboratories, a computer terminal room, a 200-seat lecture hall, and special varied laboratories for the Department of Psychology. Building renovations took place summer of 2013 and 2014.

## Fedor Hall

Fedor Hall is located on the west side of Elm Street. It was constructed in 1949 and purchased from the Youngstown Board of Education in September 1965. A \$1,100,000 renovation project was completed in 1992. It houses the student newspaper, Wee Care Day Care Center, the Rich Autism Center, and Youngstown Early College.

## Historic Buildings

Listed in the National Register of Historic Places in recognition of their representing important eras in Youngstown's development, these two buildings are in the Wick Avenue Historical District. Renovation efforts were dedicated to maintaining the visual, architectural and physical character of these structures while recognizing, identifying, and preserving their heritage.

## Fok Hall

The Honors College is housed in the oldest building on campus, built in 1893 and originally the home of the Myron Israel Arms Family. It is located on the corner of Wick Avenue and University Plaza.

## Coffelt Hall

This two-story brick building, located on the north side of University Plaza, was constructed in 1933 and renovated in 2010 to house the College of Graduate Studies.

## Jones Hall

One of the oldest buildings on the present campus is Howard W. Jones Hall, a limestone structure of conventional Tudor style on the northwest corner of Wick and Lincoln avenues. Built in 1931 and long the institution's "main building," it was renamed in 1967 to honor the man whose energy and acumen, during his 36 years as president, brought an embryonic college to membership in the state university system.

The structure was enlarged in 1949 by the addition of the C.J. Strouss Memorial Auditorium, named for the then president of the Strouss-Hirshberg Company, a friend and trustee of the University. In 1978 the interior was completely remodeled to accommodate administrative offices. Jones Hall currently houses the Offices of Student Success, Payroll, Accounting, Enrollment Management, Records, the Center for International Studies and Programs, Associate Degree and Technical Preparation Programs, and Office of Diversity and Multicultural Affairs

## Kilcawley Center

Kilcawley Center is the community center of the University. The Center's facilities and services include numerous dining rooms with a variety of diversified food service programs, lounges, 19 conference and multi-purpose rooms, ATM machine, graphic services, candy counter, copy services, stage and entertainment areas, and a billiards recreation area, as well as a FAX service, campus locker rentals, the University's lost and found, and the Center's reservations and conference services office. Kilcawley Center also includes a computer/word processing access center, campus information center, catering offices, and the Center's staff offices. Student organization mailboxes, Student Government, and student organizations are located in Kilcawley, as is the Center for Student Progress and Career Services.

## Lincoln Building

The Lincoln Building houses the Department of Mathematics and Statistics, the Math Assistance Center, and the offices of distance education and Metro Credit, as well as 14 classrooms and four laboratories.

## Maag Library

The University's six-story William F. Maag, Jr., Library, completed in 1976, provides an attractive and comfortable environment for study and research. A member of the Online Computer Library Center (OCLC), Maag Library provides reference and inter-library loan services, CD-ROM as well as online database searching, access to government documents, and other services necessary to the needs of the University community. The University Archives are housed on the fifth floor, and the Tech Desk is located on the fourth floor. The lower level of Maag houses the Writing Center, the Reading and Study Skills Center, and the English Language Institute.

## Melnick Hall

Located on Wick Avenue, the YSU Foundation and WYSU-FM are housed in Melnick. In the future, a space will be created for the Rose Melnick Medical Museum.

## Meshel Hall

Meshel Hall, dedicated January 1986, houses expanded facilities for academic and administrative computer use that broaden Youngstown State University's educational programs. The state-of-the-art center is for instruction, research and application in advanced computer technology that serves the entire University community.

The four-story steel, concrete, stone and glass structure contains 90,100 square feet of space and is located to the west of the Wick Avenue Parking Deck with its main access and entry by the pedestrian walkway over Wick Avenue. The building contains 5 classrooms, 10 specialized computerized laboratories, and 23 faculty offices. The Office of University Bursar, the Office of Financial Aid and Scholarships, and the Enrollment Center are located on the second floor.

The Department of Computer and Information Systems is located on the third floor. The fourth floor houses the University's main computer facilities and Computer Center staff.

## John J. McDonough Museum of Art

The John J. McDonough Museum of Art, located on Wick Avenue between Bliss Hall and Meshel Hall, opened for the fall quarter of 1991. The 14,000 sq. ft. multi-level building exhibits faculty and student art work, which in the past has been displayed in the Bliss Art Gallery and the Kilcawley Center Art Gallery. It also exhibits works by artists from other universities as well as local and regional artists, and serves the academic program of the Art Department with shows and competitive exhibits. The museum has the following spaces and functions: installation gallery, traditional galleries, art lecture hall, work/preparation area, storage, public lobby and restrooms, offices, loading dock and receiving area, and the necessary mechanical and electrical equipment spaces.

## Moser Hall

Moser Hall, a five-level structure completed in 1967, houses the College of Science, Technology, Engineering, and Mathematics. In addition to 49 laboratories, 11 classrooms, 2 research and development rooms, 7 conference rooms, and 76 offices, it contains the 200-seat state-of-the-art Schwebel Auditorium. A \$6,873,000 renovation project was completed in fall 1996. Moser Hall also houses the Clarence R. Smith Mineral Museum.

## Phelps Building

The Phelps Building, located on the corner of Lincoln Avenue and Phelps Street on campus, houses the Department of Geography and the Public Service Institute, including the Center for Urban and Regional Studies and the Center for Human Resources Development, and Institutional Research and Analytics.

## Service Buildings

The buildings at various locations on campus that house specific services include:

### Salata Complex

Salata Complex, located on Rayen and Wood Streets, houses University planning and construction, maintenance, administration staff, Grounds Department staff and equipment, Central Receiving, Key Control, Motor Pool, various repair shops, Printing Services, and Mail Room.

### Central Utility Plant

The Central Utility Plant is located south of the new WATTS Center on the north side of campus. The produces steam and chilled water for University needs and is distributed through a system of underground tunnels and direct-burial utility lines.

### Smith Hall

Parking Services has been moved to this new location at 275 Fifth Avenue (southeast corner of Rayen and Fifth Avenues).

## Sweeney Hall

Sweeney Hall—formerly Dana Hall—a classic one-story building located at the corner of Bryson Street and University Plaza, was constructed in 1908. The building houses the Sweeney Welcome Center and the Office of Admissions.

## Tod Hall

The University's main administrative offices are in Tod Hall, a former library building built in 1952 and thoroughly renovated in 1978. These offices include:

- Office of the President
- Office of the Provost
- Office of the Vice President for Finance and Administration
- Office of the Vice President for Student Affairs
- University Development, Grants, and Contracts
- Office of Assessment
- Office of Marketing Communications
- ASECU Credit Union
- Office of Equal Opportunity and Policy Compliance
- YSU Board of Trustees' meeting room
- Human Resources
- The Office of Alumni and Events Management

## Veterans Resource Center

The brand new Veterans Resource Center, located at 633 Wick Avenue, houses the Office of Veterans Affairs (OVA) which serves as a central location to discuss issues, questions, or concerns current and prospective military and veteran students may have regarding their enrollment.

The Veterans Resource Center (VRC) is a 6,000 square foot, fully handicap accessible facility that is the first of its kind at any university in Ohio. The VRC features lounge space, a computer lab, meeting rooms, a community/class room, kitchenette, ample office space for outside veteran-related organizations, and much more. The VRC is open to all student veterans, currently serving military members, and military dependents who are using veteran's education benefits.

Students and all interested parties can contact the OVA by visiting our OVA (<http://cms.yzu.edu/administrative-offices/veterans-affairs/office-veteran-affairs>) website, emailing us at [veterans@ysu.edu](mailto:veterans@ysu.edu), or calling the office at (330) 941-2503/2523. Individual person-to-person meetings are available and encouraged.

## Ward Beecher Hall

This building houses the departments of Biology, Chemistry, and Physics and Astronomy. The five-story original unit was constructed in 1958, a major addition was built in 1967, and a small addition comprising chemical storerooms was completed in 1997. It was built with funds contributed by Mahoning Valley Industries and area industrialist Ward Beecher. Presently the building contains 31 laboratories, including a planetarium and a greenhouse, nine classrooms, 66 academic offices, 53 faculty-research rooms, and a conference-seminar room.

## Williamson Hall

Opened in fall 2010, Williamson Hall houses the Williamson College of Business Administration offices, including:

- Office of the Dean
- Center for Student Services and the Professional Practice Program
- MBA program
- Lariccia School of Accounting and Finance
- Department of Management

- Department of Marketing

In addition, the building houses 14 classrooms, a Financial Services Lab, a Professional Sales and Business Communication Lab, interview rooms, a 200-seat auditorium, and a conference center. WCBA student organizations share office space in the building, and students have access to eight student team rooms, three networked computer labs, a quiet study lounge, and collaborative areas. Williamson Hall is also home to:

- Center for Nonprofit Leadership,
- Williamson Center for International Business,
- Nathan and Frances Monus Entrepreneurship Center,
- Ohio Small Business Development Center at YSU
- Executive-on-Campus office

The Gallery of Industry, Business, and Entrepreneurship, a spacious sky-lit atrium, and café with outdoor seating are also part of the 110,000 square feet facility.

LEED-certified by the US Green Building Council, Williamson Hall is the first "green" building on the Youngstown State University campus.

## University/Community Outreach

### Regional Economic Development Initiative (REDI)

The Regional Economic Development Initiative (REDI), located in the Office of Research at Youngstown State University (YSU), was established in 1967 as the Center for Urban and Regional Studies (CURS) to act as a research and public service arm of YSU.

The mission of CURS has been to integrate professional staff, faculty, students, and other University resources to focus on issues and problems of urban and regional development through an ongoing program of basic and applied research and technical assistance and by providing training for local government, community, and economic development organizations and businesses.

During the fall of 2015, CURS transitioned to REDI and toward the role as "Navigator" in research-based, implementation-focused economic development support services for the Mahoning Valley. REDI's change in focus and mission will reflect organizational focus on a plan-implement structure known as design-build, a model often seen in the architecture and construction industries. This focus will enable REDI to serve as the "Navigator" in economic development implementation and support services throughout the Mahoning Valley. Economic development partners throughout the region have affirmed YSU REDI's "Navigator" role.

REDI coordinates and leads monthly Economic Action Group (EAG) meetings in support of economic development in the city of Youngstown and Mahoning Valley. The EAG convenes and engages representatives from a broad cross-section of industries and organizations throughout the Mahoning Valley. REDI provides leadership on federal, state, and private grant-writing initiatives, and also provides valuable GIS mapping and data services to a number of local and regional government, nonprofit, and social service agencies throughout the Mahoning Valley and beyond.

### Center for Human Services Development

In 1985, the University Board of Trustees established the Center for Human Services Development to serve as a community resource for health and human service organizations and community leaders. Staff members at the Center work with a community-wide spectrum of people to identify community problems and needs, develop solutions, and evaluate activities in the health and human services field.

**The Center offers a variety of services, including:**

- Establishing and maintaining networks or linkages among service providers and the broader community.
- Offering technical assistance for social service program evaluation.
- Providing training for agency directors, boards, and staff members.
- Conducting community-wide needs assessments and sharing information.
- Helping organizations to develop strategic plans.
- Identifying and obtaining grants for community organizations who are working collaboratively to address community needs.

The Center is housed in the Beeghly College of Education. The Center's phone number is (330) 941-3469.

**Continuing Education**

Continuing education non-credit programs offer area residents a wide variety of adult study or lifelong-learning courses and seminars to meet the needs of a changing society for updating and upgrading professional skills, for mid-career adjustments, and for lifestyle changes.

Area residents participate annually in more than 200 non-credit programs, many of which are in the academic disciplines and professional areas, varying from half-day seminars to multi-week courses conducted in local business and government settings and other off-campus locations.

**Center for Creative Retirement****The College for the Over Sixty**

- a state-mandated program providing for the enrollment of Ohioans 60 years of age or older (who have been residents of the State for the preceding 12 months) in undergraduate credit classes on a space-available basis. Residents who meet eligibility requirements based on income level may earn credit toward a degree through the Over Sixty program.

**The YSU-ILR (Institute for Learning in Retirement)**

- an affiliate of the Elderhostel Institute Network, providing seniors with the opportunity to develop and conduct educational and social opportunities for the members of YSU-ILR.

**Community Counseling Clinic**

The Community Counseling Clinic (CCC) is a training clinic for students who are earning their master's degree. The clinic's counselors and trainees provide individual, family, couples, and group counseling services to YSU students and their families, as well as all children, adolescents, and adults living in Youngstown and its surrounding communities. All counseling services provided to YSU students are free of charge. Services are provided to non-YSU students and their families for a greatly reduced fee—usually \$1 a session, depending on income level.

The CCC offers a relaxed and confidential environment to discuss personal, relationship, academic, or work-related problems. Examples of matters which may cause one to seek counseling include: academic success-related concerns, relationship problems, family conflicts, adjustment-related problems, depression, anxiety, career indecision, and loss and grief issues. Talking with a counselor can be an important first step in making desired life changes.

In addition to clinical services, CCC staff members offer presentations and workshops on a variety of mental health issues. A small sampling of these topics includes enhancing self-esteem, dealing with stress, coping with loss, health and wellness issues, and drug and alcohol issues.

Day and evening appointments are available. Appointments can be made in person or by calling (330) 941-3056. The CCC is located in Room 3101 in the Beeghly College of Education, which is at the corner of Fifth and Rayen avenues. Additional information is available at the Community Counseling Clinic (<http://www.ysu.edu/community-counseling-clinic>) website.

**The Ohio Small Business Development Center****The Ohio Small Business Development Center (SBDC) and export assistance Network at youngstown state university**

The Ohio Small Business Development Center (SBDC) and Export Assistance Network at YSU is part of the most comprehensive and effective business assistance network in the nation. Its purpose is to help existing businesses develop, grow, and retain a competitive advantage in the ever-changing global economy while helping entrepreneurs realize their goals of business ownership.

In Ohio, the SBDC program is a partnership of the Ohio Development Services Agency and the U.S. Small Business Administration. Locally, the SBDC is hosted by Youngstown State University and the Williamson College of Business Administration. The Center provides professional, in-depth business, exporting, and international trade consulting and training to existing and new business ventures to help foster a strong and successful business community in the counties they serve. There is no fee for the consulting services, and all company and project information is held in strict confidence.

The Ohio Small Business Development Center and Export Assistance Network at YSU is located in the Williamson College of Business Administration – Room 1155, and can be reached at: (330) 941-2140.

**Telecommunication Services****WYSU-FM, 88.5 MHz**

Youngstown State University owns and operates WYSU-FM, a 50,000-watt radio station that serves the Mahoning and Shenango Valley region with fine arts and news and information programming from its studios in Cushwa Hall. The station broadcasts a mix of news and classical music programs on its main analog channel, on its HD1 (digital) channel, and as an Internet stream; it also broadcasts all-classical music on its HD2 channel and second Internet stream. The station broadcasts at 88.5 MHz in Youngstown, at 88.1 MHz in Ashtabula, and 97.5 MHz in New Wilmington, Pennsylvania.

WYSU-FM is non-commercial, listener-supported public radio, committed to being the community's leading source for trusted, in-depth news, engaging conversation, and music that stimulates the mind and spirit.

As one of Youngstown State University's most visible daily representatives to the community, WYSU also strives to be a valuable ambassador to that community, providing a forum to promote the artistic and intellectual activities of the university. The core of the radio operation is a full-time professional staff. Youngstown State University students whose qualifications meet professional broadcasting standards are also employed to support various aspects of the station's operations.

**FM-SCA Programs**

The University transmits special educational programs for the sight-disabled on a multiplex basis using a sub-carrier frequency of 67 kilohertz.

**Western reserve public media, Northeastern Educational Television of Ohio**

The University is a member of NETO (Northeastern Educational Television of Ohio), a public television consortium of the state universities at Akron, Kent, and Youngstown, which operates UHF Channels 45 and 49.

Common transmitters at Salem and Akron broadcast programs acquired from the Public Broadcasting Service and the Ohio Educational Television Network as well as local programs produced at Kent, Akron, and by contract at Youngstown.

## Honors College

### HONORS COLLEGE

**Director, Amy L. Cossentino**

### Mission of the Honors College

The mission of the Youngstown State University Honors College is to provide academically talented students of any discipline with a community of excellence to develop their full intellectual and cultural potential. Through a combination of extraordinary learning experiences in small classes and experiential seminars, living-learning communities, unique and flexible resources for commuter students, leadership and innovative engagement activities, service-learning and traditional volunteer initiatives, interdisciplinary projects, research opportunities, and community, regional, and global perspectives, we fulfill this mission. As a direct outgrowth and articulated in the YSU Mission Statement, the Honors College "places students at our center" of an energized and inclusive community of faculty, staff, and alumni who share in the pursuit of life-long excellence in learning and civic engagement.

### Outcomes

#### ENRICHMENT

Eligible students who desire an enriched education may take honors courses and thus participate in the "honors experience" by applying to the Honors College.

#### HONORS RECOGNITION CEREMONY

An event held in spring recognizes students in the Honors College for having reached various completion milestones. Recognition will be in the form of the following:

- First-year students in honors will receive a certificate of participation.
- Students with 12 credits of honors completed by the end of fall semester, no matter what year in the program, will receive the Honors Pin.

#### HONORS DIPLOMA

Students may apply to the Honors College, pursuing excellence in a broad range of subjects. Successful completion of this guided course of study will be acknowledged with a special designation on the commencement program, diploma, and final transcript.

### Benefits of Joining

- Students enjoy the benefits of early registration each semester they are actively participating.
- Honors students are eligible to live in the Honors College's living and learning center, Cafaro House Residence Hall, or The Courtyards Apartments - Building #2.
- Course material is covered in much greater depth than in a traditional class. Therefore, Honors students receive a "value-added" education;
- Members may use the computer facilities in Fok Hall, which includes wireless connectivity, study space, and a student lounge.
- As reflected by the transcript and diploma, an Honors student has shown the desire and ability to go above and beyond what is traditionally required by the University. This is particularly impressive to graduate and professional schools and potential employers.
- High-achieving students benefit from the experience of taking classes and learning with some of the most academically talented students in the nation.
- It is a gift that a person who loves learning gives to oneself and to others.

## Administration of the Honors College

The program is operated by the Honors Director under the jurisdiction of the Honors Committee of the University Senate. The Honors Director reports to the Provost.

## Baccalaureate Honors

### ENTRANCE REQUIREMENTS

1. Students qualify with a 3.5 overall grade point average and at least a composite ACT score of 26, or combined SAT score of 1760 or 1260 on the new SAT.
2. Current YSU students must have completed at least 12 semester hours of college-level study (not to include remedial courses) with a cumulative GPA of at least a 3.4.
3. Transfer students must have completed at least 15 semester hours of college-level study accepted for credit at YSU (not to include remedial courses) with a cumulative GPA of at least a 3.4.
4. Students enrolled in or eligible to enter the Honors College and others approved by the instructor and director of Honors may take honors courses.
5. To remain in good standing in the Honors College, students must maintain a GPA of at least a 3.4. Students falling below this level for two consecutive semesters will be dropped from the program.
6. Students who complete no honors work for two consecutive semesters will be suspended from the program. Satisfactory progress must be made in order to fulfill all applicable honors college scholarships.
7. Completing the honors requirements necessitates an average of three to six hours of honors work per semester for the first six semesters, unless the student will graduate in less than four years. If graduating in less than four years, the student should work with the Honors Director to map out a plan for completion. All honors coursework, except for the senior honors thesis or capstone, should be completed before the senior year.

## Baccalaureate Honors Curriculum

(for students who enroll beginning Summer semester 2015)

Students who enter into the Honors College beginning summer semester 2015 are required to complete at least 25 semester hours of honors work, including a senior thesis or capstone.

Further requirements include the following:

- *First Year Honors Seminar (Intro to Honors)* – 1 credit (to be taken in either the first or second semester)
  - *General Education Requirements* – 9 credits (GER's should be taken as actual honors courses and not contracted)
  - *Other* – 12+ credits (Combination of seminars, upper division courses, or general education requirements)
  - *Senior Honors Capstone*<sup>1</sup> 1-3 credits
- <sup>1</sup> During the senior year, a capstone thesis/project in the major department is required. This is generally worth 1-3 semester hours depending upon the department. A faculty advisor, selected by the student and approved by the Director of Honors, will oversee this project. The completed capstone in the form of a thesis should be bound and archived by the Library and stored in the Honors College, Fok Hall. Certain projects other than theses may be presented in poster form or technologically recorded and similarly archived and stored. A public defense is required and may be in the form of an exhibition, recital, formal presentation at a regional/national conference or Quest. Projects completed by individuals, teams, and teams of students working with community officials are all appropriate.



## Associate Honors

The pre-college requirements for the Honors Associate track are identical to those of the four-year Honors Program. Students who have not completed the college preparatory subjects are admitted to the Honors Associate Program on the condition that their course of study includes at least one course prescribed for correcting a deficiency each semester until the deficiencies have been erased. Courses taken at the college level and used to make up a deficiency will be applied toward the Honors Associate Program.

The following students qualify, upon application for the Honors Associate track:

- Students with a 3.5 overall grade point average and a Composite ACT score of 26 or a combined SAT of 1260 (new) 1760 (old).
- Current YSU students having completed at least 12 semester hours of college-level study (not to include remedial courses) with a cumulative GPA of at least 3.4.
- Students having completed at least 15 semester hours of college-level study accepted for credit at YSU (not to include remedial courses) with a cumulative GPA of at least a 3.4.

## Honors Associate Curriculum

- *First Year Honors Seminar* – 1 credit (To be taken in either the first or second semester.)
- *General Education Requirements* – 6 credits (GER's should be taken as actual honors courses and not contracted.)
- *Other* – 3+ credits (Combination of seminars, upper division courses, or general education requirements.)
- *Honors Capstone* – 1-3 Credits

## Individualized Honors Curriculum (IHC)

An individualized honors curriculum (IHC) is available for high-achieving students who wish to alter any of the requirements listed above for either the associate or baccalaureate Honors Programs. The IHC may be necessary for first-year students entering with more than a year of college credits from College Credit Plus, Advanced Placement and other transfer credits. However, the student should prepare a full proposal that includes:

- application for IHC (available from the Honors Office)
- reasons for choosing not to follow the prescribed honors program
- goals of the IHC
- exact courses and the course format (i.e. honors class, contract honors, independent study, study abroad, etc.)
- outcomes of the IHC
- estimated time to completion

## Course Credit Generation

Honors credit generation includes:

- special sections of traditional courses
- seminars on special topics
- contract honors as necessary
- advanced course work in areas outside of the major
- a common theme when possible
- a capstone project or thesis in the senior year

## Transfer of Honors Credit

- Honors credit from other institutions will be accepted as honors credit and can be used to partially fulfill the requirements for the Honors Program at Youngstown State University provided that the honors credit was earned in a college-level course with a grade of B or higher.

- Upon application, all students from other honors programs who were in good standing relative to their previous program will be admitted into the YSU Honors Program. Honors credit earned at other institutions will be accepted as honors credit and can be used to partially fulfill the requirements for honors at YSU subject to review by the Honors Program Director.
- To graduate with an Honors diploma, a student must complete at least 13 of the total 25 semester hours of honors course work from YSU, fulfill the depth and breadth requirements of the Honors program, and complete a senior thesis or capstone in the major discipline. For more details, consult with the Honors Director.
- Students who transfer into the YSU Honors Program have all the rights and privileges granted to its members, e.g., honors housing, priority registration, use of honors facilities, etc.

## Courses of Instruction

### THE NATURE OF AN HONORS COURSE

When compared to a non-honors course, an honors course should:

- Cover material in greater depth
- Encompass more complex concepts, stressing analysis
- Place greater emphasis on communication skills
- Include discussion of applicable theories in the field
- Require of the students more preparation and class participation, including more ambitious papers or projects, as well as a greater share of responsibility for learning
- Involve more state-of-the-art technology whenever possible and appropriate

### HONORS COLLEGE COURSES

#### HONR 1500 Intro to Honors 1 s.h.

Prepares students for the expectations and requirements of the Honors Program. Students develop skills that aid in their overall academic endeavors and explore topics pertinent to their development within the Honors Program and as citizens of the university, local, national and global communities.

**Prereq.:** Admission to the University Honors Program or eligibility for admission to the University Honors Program.

#### HONR 1599 Special Topics 3 s.h.

An introductory-level examination of some topic appropriate for honors study. Typically team-designed. In certain cases, students may arrange to have the course counted toward the major by negotiation with the major department. With approval of the director of Honors, may be repeated for credit with different topics.

**Prereq.:** Admission to the Honors Program or permission of instructor and director of Honors.

#### HONR 2601 Honor Seminar 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

**Prereq.:** Eligibility for the Honors Program.

#### HONR 2602 Honor Seminar 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

**Prereq.:** Eligibility for the Honors Program.

#### HONR 2602N Honor Seminar Serving the Underserved 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

**Prereq.:** Eligibility for the Honors Program.

**HONR 2699 Special Topics 3 s.h.**

A close examination of some topic appropriate for lower-division honors study. Typically team-designed. In certain cases, students may arrange to have the course counted toward the major by negotiation with the major department. With approval of the director of Honors, may be repeated for credit with different topics.

**Prereq.:** Admission to the Honors Program or permission of instructor and director of Honors.

**HONR 3701 University Honors Seminar 1-2 s.h.**

A critical investigation of selected areas underlying civilization, embracing and integrating the particular studies of science, society, and the humanities.

**Prereq.:** Eligibility for the Honors Program.

**HONR 3702 University Honors Seminar 1-2 s.h.**

A critical investigation of selected areas underlying civilization, embracing and integrating the particular studies of science, society, and the humanities.

**Prereq.:** Eligibility for the Honors Program.

**HONR 3799 Special Topics 3 s.h.**

A close examination of some topic appropriate for upper-division honors study. Typically team-designed. In certain cases, students may arrange to have the course counted toward the major by negotiation with the major department. With approval of the director of Honors, may be repeated for credit with different topics.

**Prereq.:** Admission to the Honors Program or permission of instructor and director of Honors.

**HONR 4890 Senior Honors Thesis 1-3 s.h.**

Directed research for students pursuing senior honors thesis research. May be repeated for up to 3 s.h.

**Prereq.:** Junior status; completion of 18 s.h. of Honors coursework; submission of an approved Honors thesis proposal; and permission of the honors director.

## Contract Honors Courses

Any course other than those which are offered as an honors course (ENGL 1550H Honors Writing 1, MATH 1585H Accelerated Honors Calculus 1, etc.), remedial, or high school remedial courses may be taken for honors credit with the concurrence of the faculty teaching the class and the approval of the Honors Program Director. The contract honors option does not involve more credit hours for a course, but rather credit of a different kind. Proposals should involve not simply more work on the part of the student, but rather work in greater depth. Proposals are initiated by the student and instructor, then carefully reviewed by the department chair. Chairs certify that by the standards of the discipline, proposals meet the criteria listed on the contract form. The further approval process is outlined on the form.

Request for Contract Honors Credit form is available for download at the honors website (<http://www.ysu.edu/academics/honors-college>).

Remedial courses are not suitable for contract honors. Contracts are not normally approved when an honors section exists for the same course (e.g. ENGL 1551H Honors Writing 2). Projects in the historiography of any discipline are acceptable. Contract proposals must be submitted with proper signatures by the due date listed on the contract honors form.

Grades are reported to the Honors Program Director, using the form "Grade Report for Contract Honors." This form, in either electronic or paper format, is sent to the sponsoring faculty member after the project has been accepted by all appropriate individuals.

## University Honors Program Engagement Requirements

### ORIENTATION

All honors students are required to participate in the orientation program held before the start of fall semester. Residential and commuter students are required to attend.

### VOLUNTEERISM AND SERVICE-LEARNING

Honors students are required to complete 60 hours of volunteerism on an annual basis. Twenty hours may be accumulated in the summer with the approval of the Honors Director. Reporting of volunteerism is required at the conclusion of each activity. Students are required to engage in at least two Honors College sponsored volunteer events of their choice. All Honors students are required to participate in the annual Global Day of Service held at the beginning of fall semester.

### ENGAGEMENT/LEADERSHIP/CO-CURRICULARS

Students who connect to the university through active participation demonstrate higher satisfaction and retention. Honor students are required to engage in student life. A total of 15 cocurriculars are required for the first year, 10 the second year, and five in both the junior and senior years. The co-curricular activities are divided among the following categories: Music, Theater, Art, Lecture/Seminar/Symposium, and Sports.

Honors students must attend or participate in at least one activity in each category per year. It is encouraged that Honors students attend most of their co-curricular activities on campus and within the Mahoning Valley. During the sophomore through senior years, additional requirements of organization membership, leadership, and networking experiences are encouraged and developed with guidance. *All Honors students are required to take part in the Honors College Retreat in January, as well as Honors College organized co-curricular each semester.*

#### Student Organizations

All Honors Students are members of the Honors Trustees. The Trustees is an official student organization at YSU. The group receives funding from YSU to sponsor events and volunteer projects that are available to the University community at large. Rotaract is also an organization available to students ages 18-30 with the focus on the development of young adults in their communities through service and leadership. New to launch in fall 2016 is the Honors College Health & Wellness Club.

#### National Fellowships and Scholarships

The Honors College leads the National Scholarship Committee composed of faculty and staff from across the campus to advertise scholarship opportunities and prepare students for prestigious competitions such as the Truman, Marshall, Goldwater, and Rhodes Scholarships. Information and applications for these scholarships are maintained by the Honors College Office.

### STUDY ABROAD/GLOBAL CITIZENSHIP

Honors students are encouraged to participate in study abroad experiences. The Honors College staff will assist students with letters of recommendation for participation and potential scholarship opportunities. Opportunities for Global Citizenship will be available for students and may take the form of Volunteerism or Leadership opportunities when a formal study abroad experience is not possible.

### LIVING-LEARNING ENVIRONMENTS (OPTIONAL)

Both residential and commuter students can enjoy the community that exists within honors. Two on-campus honors residential learning communities—Cafaro House and Building #2 of the Courtyards are available. Cafaro House is equipped with a computer lab and academic wing. The accommodations are 4-, 8-, and 18-person suites with two students per room. The Courtyards

offer either 4-person, 2-person, or single apartments. No matter the apartment type, each student has his/her own bedroom. Fok Hall now serves as the home for the Honors College staff and is situated half-way between both residential communities and within convenient walking distance from the six academic colleges. Available in Fok Hall is a student lounge, conference room, study space, meeting rooms, relaxation room, and the Penguin Pantry—all of which provide space for community building and learning. Commuter and residential students enjoy the home-like atmosphere within Fok Hall to foster learning and collaboration.

## DOCUMENTATION OF ANNUAL STUDENT LEARNING OUTCOMES AND PROGRAM REQUIREMENT COMPLETION

Honors students are required to complete documentation of all requirements for the annual end of the year review. The review will determine scholarship renewals and progress in the program to meet annual student learning outcomes for the five pillars: Leadership/Engagement, Interdisciplinary Perspectives, Volunteerism/Service Learning, Research and Scholarship, and Academics & Research.

Students are required to maintain records and report all service conducted outside of the university, student work demonstrating mastery of student learning outcomes, and other scholarly and academic work of added value to retain in the online portfolio.

## DOCUMENTARY RECOGNITION OF SUCCESS IN THE HONORS COLLEGE

### GRADE RECORDS

A student's permanent record will be the sole official record of his or her honors courses and seminars, each of which will be designated with an "H" after the catalog number, or in some cases, with a note detailing that honors credit was earned for that particular course.

### COMPLETION OF THE HONORS COLLEGE REQUIREMENTS

When a student's record satisfies the requirements, the Honors Director will initiate having the following notation entered on the student's record: "Has successfully completed the University Honors Program," and upon graduation the student will be awarded the Honors Medallion, special recognition in the commencement program, and an Honors diploma.

# Special Academic Programs

## Honors College

The Honors College is open to students meeting select criteria from any associate or baccalaureate program. Completion of Honors College requirements results in the placement of the Honors College distinction on the student transcript and diploma.

See the Honors College (p. 71) section of the *Undergraduate Catalog* for more information.

## Early Enrollment Opportunities

Youngstown State University offers programs that provide additional academic challenges to 7th - 12th grade students who have demonstrated college readiness. The programs allow students to experience college-level course work, supplement their high school curriculum, enjoy special interests and accumulate college credit. Course work may be applied toward a program at Youngstown State University or may be transferable. Students who plan to continue at YSU after graduation from high school must reapply to YSU and provide a final high school transcript to the Office of Admissions. These programs include:

*College Credit Plus*

The YSU College Credit Plus program (CCP) offers credit-bearing college courses to 7th - 12th grade students. Students earn college credit on an official YSU transcript that is transferable to any state-funded college or university in Ohio and some private and out-of-state schools. CCP students who plan to continue at YSU after graduating high school must reapply to YSU and provide their final high school transcript. See the College Credit Plus (<http://cms.ysu.edu/administrative-offices/metro-credit/college-credit-plus>) website for eligibility and information about course offerings in each school district. In addition:

- Students can enroll in any class for which they are qualified. Classes may be taken on campus, online or at the high school (course offerings vary). See the College Credit Plus (<http://cms.ysu.edu/administrative-offices/metro-credit/college-credit-plus>) website for eligibility and information about course offerings in each school district.
- There are two payment options in the CCP program. Students can either be self-pay (Option A) or state-funded (Option B). See the Student Cost: Option A vs Option B (<http://cms.ysu.edu/administrative-offices/metro-credit/student-cost-option-vs-option-b>) webpage for more information.

### *College Tech Prep*

Ohio College Tech Prep blends high-level academics with advanced career technology education. Focused on student success and workforce development, this educational initiative requires collaboration among secondary and postsecondary partners to support students through a smoothly structured transition from high school to college to careers.

Students successfully completing the secondary portion of College Tech Prep and continuing in their career pathway at the postsecondary level may earn articulated college credit or Career Technical Credit Transfer (CT)<sup>2</sup>/CTAGs.

College Tech Prep is coordinated in Ohio through six regional centers. Ohio College Tech Prep is jointly managed by the Ohio Department of Higher Education (formerly the Ohio Board of Regents) and the Ohio Department of Education's Office of Career-Technical Education. For more information, contact the Office of Associate Degree and Tech Prep Programs or visit the College Tech Prep (<http://cms.ysu.edu/administrative-offices/associate-degree-programs/college-tech-prep>) site.

### *Youngstown Early College*

YEC, the first school of its kind at a public university in Ohio, helps Youngstown city school district students succeed in high school and make a successful transition to higher education. From YEC's home base in Fedor Hall on the YSU campus, students take a combination of high school and university classes, graduating from high school with up to 64 hours of college credit. The YEC program operates in partnership with Eastern Gateway Community College and YSU. Youngstown Early College was developed with the assistance of the KnowledgeWorks Foundation and the Bill and Melinda Gates Foundation.

## *Individualized Curriculum Program*

The student whose needs are not met by existing conventional programs may wish to investigate and apply for the Individualized Curriculum Program (ICP). This option requires a student to design the curriculum suited to his or her particular background and needs, allowing alternative paths for reaching the currently offered undergraduate degrees.

A student admitted to the program will have the help of a committee of faculty advisors selected by the student. This committee will help to develop a program that will serve a valid educational goal not attainable within the regular curricular structure of the University. To receive approval, the overall program needs to be of a scope and intensity comparable to conventional programs leading to the degree being sought.

Students wishing to develop an individualized curriculum must meet the following requirements:

1. Sophomore standing 32 s.h. completed (for baccalaureate degree)
2. GPA of at least 2.50
3. Students pursuing a baccalaureate degree must have at least 30 s.h.'s to complete once the program has been approved. Students pursuing an associate degree must have at least 20 s.h.'s remaining upon approval.

The ICP does not provide for new or modified courses or degrees, or for changes in course prerequisites. Credit by examination may be sought, subject to approval through normal channels.

Detailed information is available from the director of the program, Room 104, DeBartolo Hall or on the web at ICP (<http://www.yzu.edu/academics/college-liberal-arts-social-sciences/individualized-curriculum-program>).

## Interdisciplinary Programs

The University offers a number of interdisciplinary programs. More information on these programs may be found in the College of Liberal Arts and Social Sciences section of the catalog:

- Africana Studies
- American Studies
- Global Education
- Judaic and Holocaust Studies
- Islamic Studies
- Peace and Conflict Studies
- Women's Studies
- Working-Class Studies

## International Programs Office (IPO)

The IPO is an integral part of the Division of Academic Affairs and is responsible for coordinating the international dimensions of the university, including international student and faculty services, study abroad and exchange programs, and servicing the English Language Institute (ELI).

For more information on International Student Services, see International Programs Office (<http://cms.yzu.edu/administrative-offices/center-international-studies-and-programs/cisp-home>) under Student Services; for more information about international student admission, see International Applicants.

## Study Abroad

Youngstown State University encourages students to engage in international study as part of their YSU education. Credits earned through study abroad at postsecondary institutions overseas must be approved in advance through the IPO in consultation with academic colleges and departments. Students studying abroad through YSU-affiliated programs and institutions with the requisite amount of credits maintain full-time status at YSU and remain eligible for state, federal, and institutional financial aid. Credits earned by foreign study through YSU-approved study-abroad programs are treated as transfer credit and therefore are not computed into the student's grade point average. Students must be in good academic standing and meet the GPA requirements of both YSU and the host program in order to be approved to study abroad.

## Scholarships for Study Abroad

Most YSU tuition scholarships apply to study-abroad programs. The IPO also coordinates advising for the Fulbright, Gilman, Freeman-Asia, National Security Education Program (NSEP), and Rhodes Scholarships.

## Study-Abroad Programs

### International Exchange Programs

YSU students pay tuition and fees at YSU and exchange places with students from the overseas institution for one or two semesters. YSU maintains reciprocal exchange agreements with the University of Jyväskylä in Finland, Fontys University of Applied Sciences in the Netherlands, Sejong University in South Korea, and Lunghwa University of Science and Technology in Taiwan. All programs offer coursework in English.

### Affiliated Programs

Youngstown State University is a member of the Ohio International Consortium (OIC). This membership provides YSU students with access to OIC scholarships and study-abroad opportunities. YSU maintains affiliation agreements with other high-quality study-abroad organizations, including University Studies Abroad Consortium (USAC), the American Institute for Foreign Study (AIFS), Cultural Experiences Abroad (CEA), and International Studies Abroad (ISA).

### Faculty-Led study abroad Courses

The IPO works with YSU faculty who teach YSU international field study courses, which are YSU courses that incorporate an international component, usually one to four weeks in length. Recent YSU faculty-led study abroad programs have been conducted in the Bahamas, China, England, France, Mexico, Italy, South Africa, and South Korea. YSU credit is also available for an intensive Italian language program offered in the summer in Italy during select years.

## The English Language Institute

The English Language Institute (ELI) at YSU was established through the IPO and the Department of English to provide intensive study of English to speakers of other languages. It offers non-degree credit courses designed to teach English to students who already have some knowledge of English. In addition, the ELI provides an orientation to college life and culture in the United States. Courses are available both to international students and to immigrants.

The ELI welcomes all students, as well as professionals, who wish to increase their English language proficiency. The ELI prepares students for academic study in American universities, using the following curriculum:

- Five levels (Introductory, Beginning, Intermediate, High Intermediate, and Advanced) covering Grammar, Reading, Writing, Listening, and Speaking
- TOEFL Preparation for a total of 20 hours per week.
- There are two seven-week modules per semester (fall and spring) and one eight-week summer session.

ELI admission is through the CISP. Students must be at least 17 years old or have completed high school. For an application and more information about the ELI, visit the ELI (<http://cms.yzu.edu/administrative-offices/english-language-institute/eli-home>) website.

## Off-site Degree Programs

### Allied Health and Public Health

The University offers baccalaureate degree-completion programs in allied health and in public health on the campus of Lorain County Community College (LCCC). Allied health is also offered at Cuyahoga Community College (CCC) and Lakeland Community College (LCC). Students in these programs are registered at Youngstown State University and attend classes online or at the LCCC, CCC, or LCC campuses. Courses are taught by YSU faculty members via online (web-based delivery). LCCC, CCC, and LCC provide support services and access to facilities, such as computer labs and the library, including Ohio LINK online research services. Students are advised by YSU faculty members or a YSU academic advisor. Faculty members may hold office hours at the off-site campus, online, or through video conferencing systems. Students communicate with faculty members using a variety of methods

including online discussions, e-mail, video conferencing, phone, and face-to-face meetings.

## Criminal Justice

Youngstown State University offers a baccalaureate degree-completion program in criminal justice on the campuses of Lorain County Community College (LCCC) and Lakeland Community College (LCC). Students in this program are registered at YSU and attend classes at the LCCC or LCC. Courses are taught by YSU faculty members, using interactive video conferencing systems. LCCC and LCC campuses provide support services and access to facilities, such as computer labs and the library, including Ohio LINK online research services. Students are advised by a YSU academic advisor. Faculty members may hold office hours online, by phone, or through video conferencing systems. Students communicate with faculty members using a variety of methods including online discussions, e-mail, video conferencing, phone, and face-to-face meetings.

## Social Work

YSU offers Bachelor of Social Work degree completion programs at the following off-campus sites:

- Lakeland Community College (Kirtland, Ohio)
- Loraine Community College (Elyria, Ohio)
- Stark State College (North Canton, Ohio)

Students in these programs take course work at the host community college and combine credits earned with YSU social work courses taught on the site of the respective community college to fulfill requirements for the BSW degree. All YSU instruction is provided by YSU faculty members through face-to-face meetings, telephone, or video conferencing. Students have access to Ohio LINK online research services and student support available on the community college campus.

## Electric Utility Technology, Power Plant Option

The University offers an Associate of Technical Studies degree in electric utility technology, power plant option (EUT/PPT) on the campuses of Eastern Gateway Community College (EGCC) in Steubenville, Ohio and Belmont Technical College (BTC) in St. Clairsville, Ohio. Students in the program are registered at Youngstown State University and attend classes at the community college campuses. The community colleges provide supporting courses, services, and access to facilities. Students are advised by both YSU faculty members and EGCC/BTC academic advisors. Faculty members may hold office hours at the off-site campuses, online, or by phone. Students communicate with faculty members using a variety of methods, including video conferencing, e-mail, phone and face-to-face meetings.

At EGCC, the EUT/PPT courses are taught by YSU faculty members via interactive video conferencing; at BTC, the courses are taught on site by YSU faculty members.

## Metro Credit Education Outreach

Metro Credit Education Outreach, working in partnership with University colleges and departments, school districts, employers, and community and government agencies, offers opportunities for a variety of populations to obtain college credit and degrees. The department designs programs to deliver college-credit coursework to high school students, teachers and others needing graduate education, the unemployed, the under-resourced, student-inmates at local correctional facilities, and those who cannot access campus services and programs.

In addition to College Credit Plus (see above), specific programs include:

### The Learning Community

This program is designed by and for first-generation college students. The Learning Community provides a supportive college experience that helps

students achieve college-level performance and build the resources needed to complete their goals.

### Advanced Job Training (AJT)

Metro Credit delivers core undergraduate courses at local correctional facilities offering course completion certificates via in-person teaching and interactive distance learning.

## Title II, Teacher Education

### Title II of the Higher Education Act: Teacher Education

The United States Department of Education maintains data on pass rates on licensure exams for all institutions of Higher Education. The most recent data on the pass rate for Youngstown State University and other Ohio institutions is available on the Department of Education (<https://title2.ed.gov/Public/Home.aspx>) website.

## Faculty and Staff

### University Administration

#### Ohio Department of Higher Education

The Ohio Department of Higher Education (<https://www.ohiohighered.org/board>) is a Cabinet-level agency for the Governor of the State of Ohio that oversees higher education for the state.

The Ohio Board of Regents, a nine-member advisory board to the chancellor with two ex-officio representatives from the state legislature, was created in 1963 by the General Assembly. Members of the Board of Regents are appointed by the governor with the advice and consent of the senate.

Responsibilities of the board include developing an independent annual report on the Condition of Higher Education in the state of Ohio and issuing an annual performance review of the chancellor. The board is also responsible for advising the chancellor on issues of statewide importance affecting higher education.

Member		Term Expires
Chancellor John Carey (ex-officio)	<a href="https://www.ohiohighered.org/chancellor-john-carey">https://www.ohiohighered.org/chancellor-john-carey</a>	
Thomas Humphries, Vice Chair	<a href="https://www.ohiohighered.org/node/2185">https://www.ohiohighered.org/node/2185</a>	2018
Kurt Kaufman	<a href="https://www.ohiohighered.org/node/2319">https://www.ohiohighered.org/node/2319</a>	2018
Sen. Peggy Lehner (ex-officio)	<a href="http://www.ohiohighered.org/node/161">http://www.ohiohighered.org/node/161</a>	
Rep. Andrew Brenner (ex-officio)	<a href="https://www.ohiohighered.org/content/rep_andrew_brenner">https://www.ohiohighered.org/content/rep_andrew_brenner</a>	

## University Administration

### University Board of Trustees

University Board of Trustees	Term Expires
Leonard D. Schiavone, Chair	2018
Delores E. Crawford, Vice Chair	2019
David C. Deibel	2020

Anita A. Hackstedde	2021
James E. "Ted" Roberts	2022
John R. Jakubek	2023
Samuel W. Grooms	2025
Allan Metz, Student Trustee	2018
Franklin S. Bennett Jr., Secretary	Not a Trustee

## Executive Level

Executive Level	Position
James P. Tressel, MA	President
Martin A. Abraham, PhD	Provost and Vice President for Academic Affairs
Holly A. Jacobs, JD	Vice President and General Counsel
Neal P. McNally, MPA	Vice President for Finance and Business Operations

## Division of Academic Affairs

Division of Academic Affairs	Position
Kevin E. Ball, PhD	Associate Provost, Academic Programs and Planning
Jennifer Pintar, PhD	Associate Provost, Academic Administration
Nathan P. Myers, PhD	Associate Provost, International Programs
Kristine L. Blair, PhD	Dean, CLASS, College of Liberal Arts and Sciences
Charles L. Howell, PhD	Dean, BCOE, Beeghly College of Education
Betty Jo Licata, PhD	Dean, WCBA, Williamson College of Business Administration
Joseph L. Mosca, PhD	Dean, BCHHS, Bitonte College of Health and Human Services
Phyllis M. Paul, PhD	Dean, CA&C, College of Creative Arts and Communication
Sal A. Sanders, PhD	Dean, College of Graduate Studies
Wim F. Steelant, PhD	Dean, STEM, College of Science Technology, Engineering and Mathematics
Amy Cossentino, PhD	Director, Honors College
Michael Hripko, MBA	Associate Vice President for Research
Ana M. Torres, BBA	Interim Director, Maag Library

## Division of Enrollment Planning and Management

Division of Enrollment Planning and Management	Position
Gary D. Swegan, MA	Associate Vice President for Enrollment Planning and Management
Susan E. Davis	Director, Admissions
Elaine Ruse	Director, Financial Aid and Scholarships
Jeanne M. Herman, BSBA	University Registrar
Rick Williams	Coordinator, Office of Veterans Affairs

## Division of Finance and Administration

Division of Finance and Administration	Position
Neal P. McNally, MPA	Vice President for Finance and Business Operations
Katrena S. Davidson, CPA, MBA	Controller
John P. Hyden, BCT	Executive Director, University Facilities
Gloria J. Kobus	Bursar

Marilyn K. Ward	Budget Officer, Academic Affairs
James A. Yukech	Associate Vice President for Technology and Chief Information Officer

## Division of Legal Affairs and Human Resources

Division of Legal Affairs and Human Resources	Position
Holly A. Jacobs, JD	Vice President and General Counsel
Gregory Morgione, JD	Associate General Counsel
Cynthia Kravitz, JD	Associate General Counsel, Equal Opportunity and Policy Compliance
Kevin W. Reynolds	Chief Human Resources Officer
Ronald A. Strollo	Executive Director, Athletics

## Division of Multicultural Affairs

Division of Multicultural Affairs	Position
Sylvia J. Imler, PhD	Associate Vice President for Multicultural Affairs

## Division of Student Experience

Division of Student Experience	Position
Eddie J. Howard Jr., MA	Associate Vice President for Student Experience
Joy L. Polkabra-Byers	Director, Campus Recreation & Andrews Recreation & Wellness Center
Kate Fitzgerald	Director, Housing & Residence Life & Program Coordinator, Title IX
John L. Young	Director, Kilcawley Center
Erin E. Driscoll	Director, Student Activities and Greek Life
William J. Blake	Director, Student Diversity Programs

## Division of Student Success

Division of Student Success	Position
Claire Berardini, PhD	Associate Provost, Student Success
Amy Gordon	Director, Comprehensive Testing Center
Christina Hardy	Director, Career and Academic Planning
Ann Jaronski, PhD	Director, Student Counseling Center
Nicole Kent-Strollo	Director, Student Outreach and Support
Leslie Page	Director, First Year Student Services
Becky L. Varian	Director, Center for Student Progress
William Border	Coordinator, Academic Achievers

## Division of University Relations

Division of University Relations	Position
Shannon Tirone, AB	Associate Vice President for University Relations
Catherine A. Cala	Director, Alumni Engagement
Ronald A. Cole	Director, University Communications
Jacquelyn M. LeViseur	Director, University Events
Ross L. Morrone	Director, University Marketing
Gary A. Sexton, MM	Director, WYSU-FM
Shawn Varso	Chief of Police

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### A

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### **Dr. Ying Wang**

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 Graduate Faculty Member  
 B.A., People's University of China, 1993  
 M.A., Kent State University, 1998  
 Ph.D., Kent State University, 2006

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 B.S., Youngstown State University, 1998  
 M.S., Youngstown State University, 2007  
 M.S., University of Florida, 2010

### **Dr. Amy Weaver**

Associate Professor of Nursing  
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 B.S.N., West Liberty University, 1994  
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 Ph.D., Villanova University, 2013

### **Dr. Cary Wecht**

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 B.A., Youngstown State University, 1989  
 M.A., Kent State University, 1993  
 Ph.D., Kent State University, 1999

### **Dr. Jane Wetzel**

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 Graduate Faculty Member  
 B.A., Ohio Wesleyan University, 1975  
 Certificate, University of Pittsburgh, 1976  
 M.S., University of Southern California, 1987  
 Ph.D., University of Pittsburgh, 2001

### **Dr. Amy E. Williams**

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 Graduate Faculty Member  
 B.S.E., Lock Haven University, 2002  
 M.S., University of Scranton, 2006  
 M.Ed., College of William and Mary, 2013  
 Ph.D., College of William and Mary, 2016

### **Dr. Eric J. Wingle**

Professor of Mathematics and Statistics  
 Graduate Faculty Member  
 B.S., Eastern Illinois University, 1974  
 M.A., Eastern Illinois University, 1975  
 Ph.D., University of Illinois, 1982

### **Dr. Fran Marie Wolf**

Professor of Accounting and Finance  
Graduate Faculty Member  
B.A., Miami University, 1974  
M.B.A., Youngstown State University, 1988  
Ph.D., Kent State University, 1994

**Dr. Mark D. Womble**

Professor of Biological Sciences  
Graduate Faculty Member  
B.S., Texas Christian University, 1975  
M.S., University of Kentucky, 1978  
Ph.D., University of Michigan, 1983

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B.S.B.A., Youngstown State University, 1979  
M.S., The Ohio State University, 1990  
Ph.D., The Ohio State University, 1990

**Dr. Sherri Harper Woods**

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B.S.W., Youngstown State University, 1998  
M.S., Case Western Reserve University, 2002  
D.M., Ashland Theological Seminary, 2012

**Karla A. Wyant**

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B.A., Youngstown State University, 1998  
M.S., Case Western Reserve University, 2001

## Y

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Associate Professor of Health Professions  
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B.S., Youngstown State University, 1982  
M.Ed., Kent State University, 1990

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Associate Professor of Accounting and Finance  
B.A., Jilin University (China), 1996  
M.S., University of Texas at Austin, 2003  
Ph.D., University of Texas at Austin, 2006

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Professor of Mathematics and Statistics  
Graduate Faculty Member  
B.S., Purdue University, 1971  
M.S., California Institute of Technology, 1972  
Ph.D., California Institute of Technology, 1977

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B.S., Northeastern University, 2005  
M.S., Shandong University (China), 2008  
Ph.D., Southern Illinois University Carbondale, 2013

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B.M., Cleveland Institute, 2002  
M.M., New England Conservatory of Music, 2006  
D.M.A., University of North Carolina at Greensboro, 2012

**Dr. Misook Yun**

Professor of Music  
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B.M., Han-Yang University (Korea), 1986  
M.M., Han-Yang University (Korea), 1989

M.M., University of Oregon, 1995  
D.M.A., University of Oregon, 1999

## Z

**Jason Zapka**

Assistant Professor of Engineering Technology  
B.E., Youngstown State University, 1998  
M.S., Youngstown State University, 2010

**Mark Zetts**

Instructor of Human Ecology  
B.A., Mercyhurst College, 1980  
M.B.A., Youngstown State University, 1993

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B.S., Ocean University of QingDao (China), 1986  
M.S., Ocean University of QingDao (China), 1989  
M.S., University of South Florida, 2001  
Ph.D., University of South Florida, 2005

## Colleges & Programs

### The Beeghly College of Education

*Charles Howell, Dean*

*Mary Lou DiPillo, Associate Dean*

In the Beeghly College of Education, professional courses are offered leading to teacher licensure and to the Bachelor of Science in Education degree.

### Mission

The Beeghly College of Education serves Northeast Ohio, Western Pennsylvania, and beyond as a premier provider of programs that prepare teachers, counselors, educational administrators, and school psychologists as well as providing developmental education programs to the YSU community.

The Beeghly College of Education, within our conceptual framework **Reflection in Action**, is dedicated to:

- preparing teachers, counselors, school psychologists, and administrators who apply rigorous scientifically-based professional knowledge to contemporary educational practice and issues;
- facilitating, encouraging, and supporting all departments and allied programs in meeting internal and external standards;
- recruiting, tenuring, promoting, and rewarding faculty who demonstrate excellence in teaching, scholarship, and service to the university, community, and stakeholders;
- promoting the educational ideals of a democratic and diverse society for candidates and P-12 students, faculty, staff, and the community across age, race, class, gender, culture, ethnicity, disability, and lifestyle;
- educating reflective practitioners and leaders who are committed to empowering those whom they serve.

### Conceptual Framework: Reflection in Action

At the initial level, the College's professional education programs are defined within a conceptual framework that articulates goals and identifies institutional standards that all teacher candidates are expected to meet. Our Conceptual Framework, **Reflection in Action**, seeks to develop reflective teachers who are:

**Reasoned:** Candidates exercise rational judgment and give thoughtful consideration to their professional activities and decisions.

**Ethical:** Candidates act in a moral, legal, and principled manner in professional practice.

**Fair:** Candidates exercise democratic fairness, principled concern, and humane care in their professional activities.

**Logical:** Candidates think analytically in a deliberately consistent and rationally defensible manner.

**Effective:** Candidates apply professional knowledge in a consciously purposeful and deliberate manner.

**Critical:** Candidates use professional knowledge, objectively applying it to their own professional actions and the professional actions of others to the benefit of their students and clients.

**Technical:** Candidates attend to procedural details and optimize the use of technologies appropriate to professional practice.

This conceptual framework functions to inform, guide, and inspire faculty and teacher candidates by providing a central core of related ideas from which programs evolve, are explained, and are assessed.

## Academic Departments

- Department of Counseling, School Psychology and Educational Leadership
- Department of Teacher Education

## Undergraduate Academic Programs

- Early Childhood Education/Early Childhood Intervention Specialist (Grades PK – 3)
- Middle Childhood Education (Grades 4 – 9)
- Adolescent Young Adult (Grades 7-12)
  - Integrated Language Arts
  - Integrated Mathematics
  - Integrated Science
  - Integrated Social Studies
- Multi-Age License (Grades PK – 12)
  - Health Education
  - Italian Education
  - Physical Education
  - Spanish Education
  - Visual Arts
- Intervention Specialist (Grades K-12)
  - Mild/Moderate Disabilities
  - Moderate/Intensive Disabilities

## Endorsements

- Adapted Physical Education (Grades PK-12)
- Early Childhood Generalist (Grades 4-5)
- Middle Childhood Generalist (Grades 4-6)
- Reading (Grades K-12) – Graduate Level Only
- TESOL (Grades K-12)

## Minor

- Coaching

Note: Minors are not required in the College of Education. Students wishing to pursue a minor should consult the list of official minors and seek advisement in the department that houses the minor. Minors consist of at least eighteen (18) semester hours, and one-third of the hours must be upper-division. In

approved interdisciplinary minors, courses from the student's major discipline can be counted in the minor provided that the same courses are not counted toward the major.

## Field Experiences

The field experiences designed by the Beeghly College of Education provide an opportunity for teacher candidates to implement the ideals embraced in the conceptual framework in actual classroom practice. These field experiences take place in a variety of school and community settings that encompass cultural and demographic diversity, as well as exceptional populations. The nature and duration of field-based activities vary in the amount of observation and participation based on specific course and program requirements, culminating in the clinical experience referred to as student teaching. Student teaching is a full day commitment for sixteen weeks for all majors. All field and clinical experiences encourage the teacher candidate to reflect on current practices both observed and experienced. An integral part of the reflection process is the feedback that candidates receive from the College of Education faculty, school faculty and their peers.

## Accreditation

Youngstown State University teacher education programs are accredited by the Ohio Department of Education and the National Council for Accreditation of Teacher Education (NCATE). These programs are subject to the sections of the Ohio law and regulations governing teacher education and licensure. The Beeghly College of Education serves as the recommending agent for all Youngstown State University graduates who wish to qualify for state of Ohio licensure as well as for licensure in other states.

## Degree Requirements

Requirements for completion of a baccalaureate degree (BSEd) within the College of Education include all University requirements detailed in the Academic Policies and Procedures section of the Undergraduate Catalog (i.e., graduation and general education requirements, university credits, course levels, majors, grade point average, residency and degree applications). Specific requirements for each major in the College of Education are listed in the catalog.

For more information, visit the Beeghly College of Education (<http://www.yasu.edu/academics/beeghly-college-education>).

## Majors in Teacher Education

The following designations indicate student majors:

- **Early Childhood Education/Early Childhood Intervention Specialist with Teaching English to Speakers of Other Languages (TESOL) Endorsement** - (Pre-kindergarten through grade three). For teaching children who are typically developing, at-risk, gifted, and who have mild/moderate educational needs.
- **Middle Childhood Education** - (Grades four through nine). For teaching learners in at least two of four curriculum concentration areas named on the teaching license. Students choose two areas from the following four:
  - Language Arts
  - Mathematics
  - Science
  - Social Studies
- **Adolescent Education** - (Grades seven through twelve). For teaching learners in a curriculum area named on the teaching license. Students may choose from:
  - Integrated Sciences Education
  - Integrated Language Arts Education
  - Integrated Mathematics Education
  - Integrated Social Studies Education

- **Multi-age Education** - (Pre-kindergarten through grade twelve). For teaching in a curriculum area named on the teaching license. Students may choose from:
  - Art Education
  - Italian Education
  - Spanish Education
  - Health Education
  - Physical Education
  - Music Education
- **Special Education** - (Intervention specialist, kindergarten through grade twelve). For teaching learners with Mild/Moderate Disabilities or Moderate/Intensive Disabilities.

## Requirements for Admission to Teacher Education Licensure Programs

Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the Beeghly College of Education (BCOE)'s teacher education programs or candidacy for a teaching license. *Formal admission to teacher education is required before students are allowed to enroll in junior and senior level courses in the College.*

After candidates have completed a minimum of 50 semester hours and fulfilled all other admission requirements, they should submit an application for admission to the teacher education program (Upper Division). The application for Upper Division must be completed and submitted to BCOE Room 2101 by:

- September 1st to register for Upper Division courses for Spring;
- February 1st to register for Upper Division courses for Summer and Fall.

Students who submit an application after the deadline are NOT guaranteed acceptance in time to register for Upper Division courses.

Each completed application will be reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, student will be allowed to register for Upper Division courses the following semester.

Admission to the Teacher Education Program (upper division) is obtained upon satisfactory completion of the following requirements:

- Minimum completion of 50 semester hours
- Minimum 2.75 overall GPA
- Competency in Reading, Writing, and Math

Overall GPA 3.4 OR

ACT - Reading 21, English 18, Math 22 OR

SAT - Reading 450, Writing 430, Math 520 OR

Praxis Core - Reading 156, Writing 162, Math 150

- ENGL 1550 Writing 1 and ENGL 1551 Writing 2 "B" average or better OR ENGL 2601 Intermediate Writing for Teachers "B" or better
- EDFN 1501 Introduction to Education, CMST 1545 Communication Foundations, SPED 2630 Individuals with Exceptionalities in Society and a content course (see curriculum sheet for content area course) "B" average or above
- Completion of Good Moral Character Statement
- Current BCI/FBI check (taken within the last year)
- Dispositional assessment

Candidates for degrees outside the College of Education are enrolled in the college awarding the particular degree, however these students must meet the above requirements and be admitted to Teacher Education in order to enter the

junior and senior level courses offered in the College of Education leading to teaching licensure.

Students should meet the requirements for admission to teacher education by the end of their sophomore year. Later qualification does not justify waiving any course prerequisites or planned sequences, and usually results in prolonging the period of study beyond the usual four years.

## Graduation and/or Licensure Evaluation

A Request for Graduation and/or Licensure Evaluation form should be completed and submitted to BCOE Room 2101 one year prior to student teaching and/or application for licensure. This form generates a program evaluation to assure that candidates are meeting graduation and/or licensure requirements.

## Requirements for Student Teaching

Application for a student teaching assignment must be filed with the Student Field Experiences Office (BCOE Room 2101) during the preceding semester in which student teaching is to be completed. Teacher candidates must register for 10 hours of student teaching and two hours for the student teaching seminar in their licensure area. Students anticipating more than one teaching license should seek advisement in the College of Education. To qualify for a student teaching assignment, the student must have satisfied the following requirements:

1. BCOE Upper Division Status
2. a minimum overall G.P.A. of a 2.75
3. completion of the program prerequisites
4. an average of 2.67 in the major/teaching area and professional education courses (each computed separately with no grade less than a C)
5. a passing score on the Ohio Assessment for Educators (OAE) tests and/or the equivalent as required by the Ohio Department of Education
6. completion of a criminal background check

No additional courses may be taken with student teaching, with the exception of the TESOL practicum. The Administrator of Student Field Experiences must be notified in writing prior to a student's attempt to register for course(s) outside of student teaching. Student teachers are required to complete, submit for national scoring, and pass the edTPA, Teacher Performance Assessment. The Ohio Department of Education's determination of the edTPA pass rate, and as a licensure requirement is pending. The Beeghly College of Education requires the passage of the edTPA with a minimum score of 37 (32 for Foreign Language) as one of the requirements for licensure endorsement. Student teaching is a full-time course, which may deviate somewhat from the University calendar depending on the calendar of the assigned school.

## Requirements for Licensure

### Initial Licensure

The Dean of the College of Education has the authority to recommend to the Ohio State Board of Education, and other licensure agencies, those Youngstown State University graduates who qualify for licensure in any teacher education program offered by the University. Students earning degrees in schools other than the Beeghly College of Education must complete all requirements of the teacher education program in order to be licensed. All candidates for any teaching license must meet the requirements for program admission in the Beeghly College of Education, but the degree earned may be conferred by any of the University colleges in accordance with the specific requirements for the degree desired.

However an overall undergraduate grade point average of 2.75 and 2.67 in the major field(s) and professional-education courses must have been earned if the student is to be recommended for licensure by Youngstown State University, irrespective of the type of degree received. **In addition, each candidate for licensure must pass the State of Ohio prescribed licensing examination(s) Ohio Assessments for Educators, ACTFL (foreign language)**

and the Teacher Performance Assessment (edTPA) prior to receiving YSU's recommendation for licensure.

For more information regarding additional fields, or endorsements, consult the academic advisors in the College of Education.

## Post-Baccalaureate Licensure

Post-baccalaureate students desiring Youngstown State University's recommendation for licensure in Ohio and any other state must be admitted to the University. Post-baccalaureate students are advised in the undergraduate student advisement office (BCOE Room 2101) and are advised in the same manner as undergraduate students. They must meet the standard set of requirements for admission and upper-division status in the College of Education. They must satisfy the teaching field, and professional education requirements comparable to the undergraduate program. Post-baccalaureate students may use approved, documented program equivalency to satisfy appropriate parts of the licensure program.

## Licensure in a Second Teaching Field

Post-baccalaureate and undergraduate students seeking licensure in a second teaching field will need to satisfy the approved academic program as stated in the catalog under the section "Teaching Fields." The same quality point requirements apply to second teaching fields as those for initial licensure. A passing score on the specialty exam of the State of Ohio for the second teaching field is required prior to YSU's recommendation for the second teaching field.

## Advisement

All prospective teachers are advised by the academic advisors in the College of Education. Secondary students, middle childhood students, and multi-age students are also advised in the department in which their major or areas of concentration are located.

## Title II, Higher Education Act

Please click here for the Institutional Report on the Quality of Teacher Preparation, Title II, Higher Education Act.

## Curricula and Courses of Instruction

Each curriculum leads to an Ohio resident educator license. Minimum requirements for teachers' licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. State department minimal requirements may be, and usually are, exceeded by University requirements.

*Disclaimer:* Educator Licensure tests and qualifying scores listed in the ODE charts and on the ODE website are subject to change by the Ohio State Board of Education.

For more information, visit **The Beeghly College of Education** (<http://www.yzu.edu/academics/beeghly-college-education>).

# Department of Counseling, School Psychology and Educational Leadership

## Welcome

Youngstown State University is located an hour from Cleveland and Pittsburgh. The Department of Counseling, School Psychology and Educational Leadership develops professionals who are committed to empowering individuals to achieve their full potential.

The mission of the Department of Counseling, School Psychology and Educational Leadership is to develop professional counselors, school

psychologists, and related helping professionals. We seek to produce graduates who are sensitive to the impacts of human development, culture, and context upon students and consumers of education and counseling services. Graduates are caring and compassionate administrators, counselors and helping professionals; who are self-reflective; who promote opportunity and social justice for the impoverished urban and rural populations; and, who are committed to empowering individuals to thrive, and to achieve their fullest potential.

We offer several graduate degree programs. The CACREP accredited masters degree in Counseling has options in a) Clinical Mental Health Counseling, b) School Counseling, c) Addiction Counseling, and d) Student Affairs & College Counseling. The educational specialist degree in School Psychology includes a master's degree in Intervention Services. An ELCC approved masters degree in Educational Administration and doctoral degree in Educational Leadership. Post-masters program coursework can lead to licensure as a principal, superintendent, or administrative specialist.

The faculty and students within the Department of Counseling, School Psychology and Educational Leadership are committed to academic success, excellence, and engagement. The department has a consistent record of accomplishments in relation to the mission and goals of YSU, assessment activities/results, research and scholarly activity by faculty and students, examples of student success and academic excellence, and community engagement activities.

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For more information about the Department of Counseling, School Psychology and Educational Leadership, contact the Department Office at 330-941-3257 or visit our Department website.

## undergraduate course Work Areas Counseling

The counseling program offers a limited number of undergraduate elective courses for students who are interested in developing counseling knowledge and skills and/or pursuing a graduate degree in counseling. The undergraduate counseling courses focus on mental health and wellness, leadership, career/life planning, and helping skills. The counseling program offers an MS in Education degree with program options in clinical mental health counseling, school counseling, student affairs, college counseling, and addiction counseling. Candidates in clinical mental health, school, college, and addiction counseling are prepared to meet the requirements for licensure and national certification as a counselor. A complete listing of program options and course descriptions are presented in the YSU *Graduate Catalog* and on the department's website.

COURSE	TITLE	S.H.
COUN 1587	Introduction to Health and Wellness in Contemporary Society	3
COUN 1588	Exploring Leadership: Theory and Practice	3
COUN 1589	Success in Career and Life Planning	3
COUN 2650	Foundations of Helping Skills for Allied Health Professionals	3
COUN 2651	Foundations of Helping Skills for Human Ecology Professionals	2

## Reading and Study Skills (RSS)

The Reading and Study Skills Center offers undergraduate courses for students who are interested, improving reading rate. The Center maintains a

laboratory component for the following courses mandated for students based on the COMPASS® Reading Test (CRT):

COURSE	TITLE	S.H.
RSS 1510A	Advanced College Success Skills	3
RSS 1510B	Basic College Success Skills	3
RSS 1510C	STEM Advanced College Success Skills	4

#### Chair

**Jake J. Protivnak**, Ph.D., Professor, Acting Chair

#### Professor

**Kathleen Aspiranti**, Ph.D., Assistant Professor

**Jane Beese**, Ed.D., Associate Professor

**Kristin L. Bruns**, Ph.D., Assistant Professor

**Sylvia Imler**, Ph.D., Associate Professor

**Carrie R. Jackson**, D.Ed., Assistant Professor

**Charles Jeffords**, Ed.D., Assistant Professor

**Victoria E. White Kress**, Ph.D., Professor

**Karen H. Larwin**, Ph.D., Associate Professor

**Don Martin**, Ph.D., Professor

**Kenneth L. Miller**, Ph.D., Professor

**Matthew Paylo**, Ph.D., Associate Professor

**Richard W. VanVoorhis**, D.Ed., Associate Professor

**Charles B. Vergon**, J.D., Professor

**Amy E. Williams**, Ph.D., Assistant Professor

## Counseling

### **COUN 1587 Introduction to Health and Wellness in Contemporary Society 3 s.h.**

Provides an introduction to the wellness model integrating physical, mental, and emotional well-being. Using current research, students explore decision-making models examining ethical, theoretical, multicultural, and practical concerns in developing their own wellness strategies.

**Gen Ed:** Well Being, Social and Personal Awareness.

### **COUN 1588 Exploring Leadership: Theory and Practice 3 s.h.**

Introduction to the study of leadership through theoretical and practical applications. Through group interaction, discussions, and change projects, students will develop their leadership knowledge while acquiring skills to solve leadership challenges within diverse organizations. The course will provide students with intellectual and interpersonal opportunities to practice the process of becoming effective leaders.

### **COUN 1589 Success in Career and Life Planning 3 s.h.**

The course will facilitate the development of career and life planning skills. This course is designed for, but not restricted to, entering and undeclared students. This course will emphasize identifying strengths, clarifying values, exploring career options, developing effective decision-making skills, and learning life skills related to health, finances, relationships, and community responsibility.

### **COUN 2650 Foundations of Helping Skills for Allied Health Professionals 3 s.h.**

Skill development in learning how to foster helping relationships and increase communication skills with individual, family, or group-related patient needs in a health care setting. Emphasis on ethical, cultural, socioeconomic, and special needs in allied health care settings. Includes an experiential skill video training component.

### **COUN 2651 Foundations of Helping Skills for Human Ecology Professionals 2 s.h.**

The course will facilitate the development of helping skills with individual, family and/or groups. Emphasis is on ethical, cultural, socioeconomic, and special needs in human service settings. Courses will include overview of counseling skills and theories that will assist students to address client care needs.

### **COUN 5821 Seminar in Guidance and Counseling 1-3 s.h.**

Study of selected topics chosen by staff, e.g. career guidance, counseling process, and other contemporary issues in school personnel work.

**Prereq.:** Upper-division standing.

### **COUN 5822 Seminar in Guidance and Counseling 1-3 s.h.**

Study of selected topics chosen by staff, e.g. career guidance, counseling process, and other contemporary issues in school personnel work.

**Prereq.:** Upper-division standing.

### **COUN 5823 Career Education and Career Guidance 2 s.h.**

Study of public school career education and career guidance programs; the career education continuum, legislation relating to vocational programs, historical development, and principles of vocational education and vocational guidance. Also a survey of economic services: distributive education, human resources, programs, and placement.

**Prereq.:** Upper-division standing.

### **COUN 5825 Group Processes in the School 2 s.h.**

An introduction to group activities applicable to the needs of students in the school setting. Includes the study of group processes and group dynamics for social and personal problem solving as well as in the general area of individual and group behavior. Also a study of programs that provide for counselor-teacher cooperation in the development of groups in the classroom.

**Prereq.:** Upper-division standing.

### **COUN 5879 Talented Students and Their Families 3 s.h.**

A study of consulting and referral practices related to the developmental, social and personal difficulties often experienced by gifted/talented students and their families. Includes a field study component.

**Prereq.:** Upper-division standing.

### **COUN 5888 Introduction to Health and Wellness Counseling 3 s.h.**

Provides an introduction to basic counseling principles with special focus on those factors encountered in the provision of health and wellness-related services.

**Prereq.:** Upper-division standing.

### **COUN 5895 Counseling Workshop 1-3 s.h.**

Selected topics related to prevention and intervention approaches in school and community settings. Designed primarily as continuing professional education, this course is not included in counseling degree programs.

**Prereq.:** Upper-division standing.

### **COUN 5898 Orientation and Ethical Issues in Community Counseling 3 s.h.**

This course provides students with an introduction to the field of professional counseling and the foundations of community counseling. The course addresses the following topics: history, philosophy, cultural dynamics, advocacy, consultation, technology applications, and trends in professional and community counseling. The counseling profession's ethical standards are also addressed with an emphasis on the ACA code of ethics and counselor ethical decision making processes. Requirements differ for undergraduate and graduate students.

## Reading & Study Skills

### RSS 1510A Advanced College Success Skills 3 s.h.

A course designed to develop students' skills essential for college studying. The primary focus is improving the comprehension and retention of college textbooks. Major topics include reading rate flexibility, vocabulary growth, learning style preferences, and critical reading skills. Students meet for classroom instruction, computer-aided instruction, and small group tutoring sessions to discuss and practice strategies. Open to students based on Composition and Reading Placement Test (CRPT). Grading is A, B, C, NC. Does not count toward a degree.

### RSS 1510B Basic College Success Skills 3 s.h.

A course designed to acquaint and assist students in their transition to studying at the college level. Course content stresses development of skills in word recognition, vocabulary, and reading to find main ideas, supporting evidence and conclusions in college textbooks. Students meet for classroom instruction and small group tutoring sessions to discuss and practice various thinking, listening, and reading strategies to improve college performance. Open to students based on Composition and Reading Placement Test (CRPT). Grading is A, B, C, NC. Does not count toward a degree.

### RSS 1510C STEM Advanced College Success Skills 4 s.h.

Develops study skills in STEM disciplines by improving comprehension and retention of textbook and lecture materials. Covers reading rate flexibility, vocabulary growth, learning style preferences, critical reading, and problem solving. Uses classroom instruction, computer-aided instruction, and small-group tutoring sessions to apply strategies, including STEM-based lecture applications. Grading: A, B, C, N/C. Does not count toward a degree.

**Prereq.:** placement into MATH 1501 and ENGL 1540 and RSS 1510A.

### RSS 1570 Approaches to Professional Assessments 2 s.h.

A course designed to assist students in preparation for graduate and professional-level standardized tests. Students will critically analyze the basic components of such tests. Emphasis will be placed on test requirements, test formats, guidelines for answering and scoring, and test-taking strategies.

### RSS 1571 Approaches to Professional Assessments/Applications 1 s.h.

A course designed to prepare students for graduate and professional-level standardized tests. In study groups, students will critically analyze the basic components of the test for which they are preparing, including requirements, test formats, guideline for answering and scoring, and test-taking strategies, in conjunction with effective pedagogical procedures.

## Department of Teacher Education

Dr. Marcia Matanin, Chairperson

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Administrative Assistant: Jean Berger

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## Mission

The mission of the Department of Teacher Education is to provide baccalaureate degree programs aimed at fostering excellence in the preparation of teachers for a global society while promoting a climate of respect for the diversity of individuals encountered in educational settings.

## Programs

Early Childhood Education (ECE) Grades P-3 (This program will be terminating upon initiation of the new dual licensure ECE/ECIS Program)

- For teaching children who are typically developing, at-risk, gifted, and who have mild/moderate educational needs in the general education classroom.

Early Childhood Education/Early Childhood Intervention Specialist (ECIS) Grades P-3 (available Fall, 2017)

- For teaching children with physical, cognitive, behavioral or communication delays. Early intervention specialists can work inside a P-3 classroom, provide individual services to children within their homes, work with regionally based programs, medical providers or private education companies.

Middle Childhood Education (MCE) Grades 4-9

- For teaching learners in at least two of four curriculum concentration areas named on the teaching license. Students choose two areas from the following four: language arts, mathematics, science, and social studies.

Adolescent/Young Adult Education (AYA) Grades 7-12

- For teaching learners in a curriculum area named on the teaching license. Students may choose from: Integrated Sciences Education, Integrated Language Arts Education, Integrated Mathematics Education, or Integrated Social Studies Education.

Intervention Specialist Grades K-12

- For teaching learners with mild/moderate disabilities or moderate/intensive disabilities, grades K-12

Multi-Age Education (MULT) Grades PK-12

- For teaching in a curriculum area named on the teaching license. Students may choose from: Health Education, Italian Education, Music Education (please refer to the Dana School of Music (<http://www.ysu.edu/academics/college-creative-arts-and-communication/dana-school-of-music>) for this program area), Physical Education, Spanish Education, or Visual Arts Education.

Endorsements (Endorsements may be added to a teaching license)

- Adapted Physical Education Endorsement
- Early Childhood Generalist Endorsement Grades 4-5
- Middle Childhood Generalist Endorsement (additional content areas)
- Teaching English to Speakers of Other Languages (TESOL) Endorsement

Minors

- Coaching Minor: For teaching knowledge, skills and understanding to effectively develop age appropriate practices; plan age appropriate training programs; understand and plan events, tournaments, budgeting and management of coaching personnel.
- Education Minor: Students majoring in a program other than education may select an Education minor. This minor is currently under review and will be available Spring, 2017. Please contact a BCOE academic advisor for more information

## Accreditation

The Teacher Education programs was accredited nationally by the National Council for the Accreditation of Teacher Education (NCATE) in 2010. Our next accreditation will take place in 2016-2017 by the Council for the Accreditation of Educator Preparation (<http://www.caepnet.org>) (CAEP). Additionally, Youngstown State University Teacher Education programs are fully approved by Ohio Department of Education and their respective Specialized Professional Associations (SPAs).

**Chair**

**Marcia Matanin**, Ph.D., Professor, Acting Chair

**Professor**

**Margaret L. Briley**, Ph.D., Assistant Professor

**Jeffrey M. Buchanan**, Ph.D., Professor

**M. Kathleen L. Cripe**, Ph.D., Associate Professor

**Lauren Cummins**, Ed.D., Professor

**Mary Lou DiPillo**, Ph.D., Associate Professor

**Stacy Graber**, Ph.D., Assistant Professor

**Charles Howell**, Ph.D., Professor

**Daniel Keown**, Ph.D., Assistant Professor

**Mary E. LaVine**, Ph.D., Associate Professor

**Lillian L. Lewis**, Ph.D., Assistant Professor

**Megan List**, Ph.D., Assistant Professor

**J. Paul Louth**, Ph.D., Associate Professor

**Nathan Myers**, Ph.D., Associate Professor

**Anita C. O'Mellan**, Ph.D., Professor

**Crystal L. Ratican**, Ph.D., Assistant Professor

**Gail Saunders-Smith**, Ph.D., Associate Professor

**Patrick T. Spearman**, Ph.D., Associate Professor

**James P. Tressel**, M.A., Professor

**Abel Waithaka**, Ph.D., Assistant Professor

#### Instructor

**Courtney Cruz**, M.S., Instructor

**Betty L. Greene**, M.Ed., Instructor

## Majors

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- Integrated Language Arts (7-12) - Adolescent License (p. 115)
- Integrated Mathematics (7-12) - Adolescent License (p. 119)
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- Integrated Sciences (7-12) - Adolescent License, Physics Concentration (p. 134)
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#### Minors

- Coaching Education P-16 Minor (p. 141)

## Early Childhood Education

### ECE 2629 Best Practices in Early Childhood Intervention Specialist 3 s.h.

Gives teacher candidates a research-based inquiry into early childhood education and promotes the acquisition of knowledge, skills, and dispositions that will facilitate best practices within the field. 10 field/clinical hours.

### ECE 3713 Teaching of Mathematics: Early Years 3 s.h.

Using NCTM/NAEYC/NCATE and Ohio Model guidelines as the framework, focus on identifying and modeling developmentally appropriate strategies used for problem solving, communicating, and reasoning in early childhood mathematics. Learning to use mathematical connections to stimulate diverse students' development of math concepts and skills and create learning environment combining mathematics pedagogy/methodology in an early grades classroom.

**Prereq.:** BCQE upper-division status and approval of chair.

**Coreq.:** ECE 3715, ECE 3780, and ECE 4814.

### ECE 3715 Teaching Science: Early Years 3 s.h.

Using NSTA/NCATE and Ohio Model guidelines as the framework, focus on establishing and maintaining learning environments that provide diverse students with a holistic, interdisciplinary understanding of science. Topics include teaching for meaningful science understanding, planning and providing an effective and supportive learning environment, planning and implementing curriculum and lessons appropriate for children in their early years, selection and use of instructional aids and resources, assessment, and professional development. Experiences that promote the use of science processes and problem-solving skills for life-long learning. Field experience combining science pedagogy/methodology in an early childhood setting.

**Prereq.:** BCQE upper-division status and approval of chair.

**Coreq.:** ECE 3713, ECE 3780, and ECE 4814.

### ECE 3760 Cross-Curricular Applications and Classroom Management/Guidance 3 s.h.

Synthesis and application of developmental theories and appropriate practices and methods in classrooms for young children, including curriculum integration, quality classroom environments, and classroom management/guidance. (10 hours of focused field placement.)

**Prereq.:** BCQE upper-division status.

### ECE 3780 Social Studies for Young Children 3 s.h.

Methods of teaching social studies to young learners (PreK-3) including exploration of a variety of effective teaching and assessment behaviors related to diverse learner needs. Use of key concepts, application of tools of social studies to foster social development and encourage independent problem solving, investigate the use of technology, create instructional resources; collaboratively plan, teach, and evaluate lessons in inclusive instructional settings; keep a reflective learning log.

**Prereq.:** BCQE upper-division status and approval of chair.

**Coreq.:** ECE 3713, ECE 3715, and ECE 4814.

### ECE 3790 Assessing Learning in Early Childhood Education P3 3 s.h.

This course examines the theoretical foundations and developmentally appropriate assessment strategies in a P-3 classroom. Candidates will explore a variety of informal, formal, formative and summative classroom assessment strategies and critically investigate standardized assessments used in the current national and state movements toward accountability and "high-stakes" assessment. This course is a required part of the TEC experience to provide candidates with an authentic classroom assessment experience.

**Prereq.:** ECE 3760.



**ECE 4811 Supervised Student Teaching: Pre-Kindergarten 1-12 s.h.**

Student teaching consists of a 10-week assignment in a preschool. Grading is CR/NC.

**Prereq.:** CHFM 2664, ECE 2630, SPED 2631.

**Gen Ed:** Capstone.

**ECE 4814 Language Arts Methods in the Early Years (Ages 3-8) 3 s.h.**

Teaching oral and written communication through consideration of listening, speaking, reading, viewing, and related skill areas in the elementary school.

**Prereq.:** BCOE upper-division status and approval of chair.

**Coreq.:** ECE 3713, ECE 3715, and ECE 3780.

**ECE 4841 Supervised Student Teaching: Early Childhood 1-10 s.h.**

A 16-week assignment in a kindergarten-grade 3 setting. Grading is CR/NC.

**Prereq.:** BCOE upper-division status, passing scores on PRAXIS II content and PLT tests, criminal background check, and completion of early childhood program excluding student teaching and student teaching seminar.

**Coreq.:** ECE 4842.

**Gen Ed:** Capstone.

**ECE 4842 Student Teaching Seminar in Early Childhood Education 2 s.h.**

Development of an effective and developmentally appropriate K-3 classroom environment including: teacher work sample, daily lessons, classroom management, reflective teaching and growing as a professional in the field of early childhood education.

**Coreq.:** ECE 4841.

**ECE 4859 Pre-Kindergarten Teaching Methods and Materials 3 s.h.**

Methods and techniques used to implement the pre-kindergarten curriculum with emphasis on communication and creative arts, social, emotional, and physical development, and concept formation. Required for prekindergarten validation of other teaching certificates.

**Prereq.:** SPED 2631, ECE 3759.

**ECE 6910 Curriculum, Theories, and Methods in Early Childhood Education, Pre-K-Grade 3 3 s.h.**

Investigation of curriculum, theories, and assessment and how they relate to children's learning. Attention given to the role of parents as teachers.

**ECE 6911 Early Childhood Pedagogy in Math and Science 4 s.h.**

By exploring math and science teaching practice for grades K-3, the candidates will review teaching methods of math and science, find and design math and science programs and lessons, incorporate national and state standards in teaching math and science, and strengthen the assessment methods for classroom instruction. This course is linked to ECE 6921 in terms of an action research to solve real problems in teaching math and science for the participating teachers.

**ECE 6920 Current Social Issues in Early Childhood Education 3 s.h.**

Analysis of contemporary issues, trends, and current educational policies that impact classroom practices. Includes service-learning component.

**Prereq.:** ECE 6910 or ECE 6911.

**ECE 6921 Action Research in Early Childhood Education, Pre-K-Grade 3 3 s.h.**

Designed as a culminating experience. Direct participation is required for the successful completion of a field study, onsite project, or other classroom-based experience deemed suitable by the student's major faculty advisor.

**Prereq.:** ECE 6911 and FOUN 6904.

## Early Childhood Intervention Specialist

**ECIS 2600 Educating the Whole Child 3 s.h.**

This course is designed to provide teacher candidates with the knowledge and skills needed to educate the whole child. A balanced approach is studied which includes a strong foundation in core subjects in addition to the whole child tenets of: healthy, safe, engaged, supported, and challenged.

**ECIS 2629 Best Practices in ECIS 3 s.h.**

Gives teacher candidates a research-based inquiry into early childhood education and promotes the acquisition of knowledge, skills, and dispositions that will facilitate best practices within the field. 10 field/clinical hours.

**ECIS 3700 Integrated Strategies in ECE/ECIS Inclusive Environments 4 s.h.**

This course examines developmentally appropriate teaching practices in a PK-3 inclusive classroom. Candidates will explore the concepts of differentiation, integration, universal design, IEPs and classroom designs, along with schedules that support learning for all students. Requires 10 hours of field experience.

**Prereq.:** Upper division status in BCOE.

**ECIS 3790 Assessing Learning in Early Childhood Education PK3 3 s.h.**

This course examines the theoretical foundations and developmentally appropriate assessment strategies in a PK-3 classroom. Candidates will explore a variety of informal, formal, formative and summative classroom assessment strategies and critically investigate standardized assessments used in the current national and state movements toward accountability and "high-stakes" assessment. This course is a required part of the preclinical experience to provide candidates with an authentic classroom assessment experience. Requires 65 hours of field experience.

**Prereq.:** Upper-division status in BCOE.

**ECIS 4801 Teaching of Language Arts and Social Studies: The Early Years 4 s.h.**

Candidates focus on identifying and modeling developmentally appropriate strategies used for problem solving, communicating, and reasoning in early childhood language arts and social studies. Candidates create effective learning environments using content-specific pedagogy to make connections to stimulate students' development of language arts and social studies concepts and skills in a diverse PK-3 classroom. Requires 65 hours of field experience.

**Prereq.:** Upper-division status in BCOE, ECIS 3700, TERG 3703.

**Coreq.:** ECIS 4802, ECIS 3790, SPED 5866.

**ECIS 4802 Teaching of Mathematics and Science: The Early Years 4 s.h.**

Candidates focus on identifying and modeling developmentally appropriate strategies used for problem solving, communicating, and reasoning in early childhood math and science. Candidates create effective learning environments using content-specific pedagogy to make connections to stimulate students' development of math and science concepts and skills in a diverse PK-3 classroom. Requires 65 hours of field experience.

**Prereq.:** Upper-division status in BCOE, ECIS 3700, TERG 3703, MATH 2652.

**Coreq.:** ECIS 4801, ECIS 3790, SPED 5866.

**ECIS 4841 Supervised Student Teaching: ECE/ECIS 10 s.h.**

Sixteen week supervised clinical teaching experience which provides the candidate an opportunity to apply knowledge, skills and dispositions needed to effectively teach in diverse early childhood classroom. CR/NC. Co-req.: ECIS 4842.

**Prereq.:** Upper-division status in BCOE, FOUN 3702, PSYC 3709, successful completion of pre-clinical experience.

**ECIS 4842 Student Teaching Seminar in ECE/ECIS 2 s.h.**

Student teaching seminar provides an opportunity to explore in-depth, relevant issues related to teaching/learning in the PK-3 classroom. Topics include: diversity, differentiated instruction, professional ethics, reflection, classroom management, and the edTPA. CR/NC Coreqs: ECIS 4841, ENGL 4857.

**Prereq.:** Upper-division status in BCOE, FOUN 3708, PSYC 3709, successful completion of preclinical experience.

## Early and Middle Childhood Education

**EMCE 4815 Seminar in Elementary School Science 2 s.h.**

Critical study of current developments in objectives, methods, materials, and evaluation in science education as they affect the elementary science program. Includes discussions, field trips, demonstrations and laboratory work.

**Prereq.:** Admission to COE upper-division status.

**EMCE 5811 Early Childhood Generalist: Math and Science 3 s.h.**

By exploring math and science teaching practice for grades 4-5, the candidates will review teaching methods of math and science, master the contents stated in the Ohio Academic Standards, find and design math and science programs and lessons and strengthen the assessment methods for the classroom instruction.

**Prereq.:** Upper division status.

**EMCE 5812 Integrated Language Arts and Social Studies for 4th and 5th Grades 3 s.h.**

Candidates will learn language arts and social studies teaching methods, design integrated lessons, incorporate state and national standards, and utilize assessment methods for grades 4-5.

**Prereq.:** Upper division status.

**EMCE 5816 Diagnosis and Remediation of Elementary School Mathematics 2 s.h.**

In-depth study of diagnosis and remediation as they affect the elementary school mathematics program. Includes discussions, field trips, demonstrations and laboratory work.

**Prereq.:** Admission to COE upper-division status.

**EMCE 5854 Middle School Theory and Practice 3 s.h.**

Students will analyze and reflect on major concepts, research, and theories about the physical, cognitive, emotional, moral, and social development of students in grades 4-9 and research information concerning the historic, philosophical, and organizational components of middle level schools, including program assessment and evaluation of learning environments.

**EMCE 5900 Early/Middle Childhood Education Workshop 1-4 s.h.**

Intensive study of selected topics, issues, or problems of current interest in early and/or middle childhood education. Grading is S/U. May be repeated.

**EMCE 5901 Early/Middle Childhood Education Workshop 1-4 s.h.**

Intensive study of selected topics, issues, or problems of current interest in early and/or middle childhood education. Grading is S/U. May be repeated.

**EMCE 5902 Early/Middle Childhood Education Workshop 1-4 s.h.**

Intensive study of selected topics, issues, or problems of current interest in early and/or middle childhood education. Grading is S/U. May be repeated.

**EMCE 5903 Early/Middle Childhood Education Workshop 1-4 s.h.**

Intensive study of selected topics, issues, or problems of current interest in early and/or middle childhood education. Grading is S/U. May be repeated.

**EMCE 6918 Elementary School Mathematics Programs 3 s.h.**

An analysis of past and present programs of elementary school mathematics; evaluation of programs, including a consideration of adequacy of content, recognition of mathematics as a system, and provision of number experiences for the learner.

**EMCE 6919 Social Studies Programs in the Elementary School 3 s.h.**

Objectives of elementary school social studies programs in terms of current needs; adaptation of materials of instruction in terms of the social science skills; evaluation of student progress; critical analysis of methods of improving instruction in social studies.

**EMCE 6920 Elementary School Science Programs 3 s.h.**

Focus on the objectives for science education in the elementary school; the elementary school science curriculum; process and inquiry in the elementary school science curriculum; process and inquiry in the elementary school science program; teacher education; educational media; and the evaluation of science teaching.

**EMCE 6921 Issues, Problems, Developments, and Curriculum in Elementary Education 3 s.h.**

A study of recent trends in elementary school organization and instruction (non-graded units, team teaching, middle schools, etc.) Developing an understanding of the meaning of curriculum at the elementary level, evidence of need for curricular changes, influences of society on curriculums, exploration of current status and trends; and the role of teacher and administrator in curriculum appraisal and development.

**EMCE 6990 Independent Study 1-4 s.h.****EMCE 7042 Professional Development for Classroom Teacher Educators 2 s.h.**

A restricted professional development course for classroom teacher educators invited to supervise the instructional program of student teachers and field experience students. The course concentrates on developing analytical observation, conferencing, evaluation, and supervision skills based on scientific knowledge and theoretical constructs.

**Prereq.:** Invitation from YSU and endorsement from home school district to serve as a classroom teacher educator.

**Cross-listed:** SPED 7042 and SED 7042.

## Educational Foundations

**EDFN 1501 Introduction to Education 3 s.h.**

Historical, political, legal, cultural and ethical perspectives on the work and roles of teachers and schooling. Issues confronting educators, voters, parents and children. Twenty-five hours of field work, orienting students to classrooms and to the organization and governance of school districts.

**EDFN 3708 Education and Society 3 s.h.**

School as a dynamic social institution. An analysis of how schools interact with diverse communities and with social, political, and cultural institutions and traditions. Twenty-five hours of field research.

**Prereq.:** Admission to the College of Education or permission of chairperson.

**EDFN 3710 Educational Assessment 3 s.h.**

Critical review of types, purposes, procedures, uses, and limitations of assessment strategies and techniques including authentic assessment, value-added assessment, and alternate assessment. Standardized testing and implications for current practice.

**Prereq.:** Upper Division.

## Foundations of Education

**FOUN 5875 Seminar in Foundations of Education 1-3 s.h.**

Selected topics for a focused study on problems, issues, or concerns to be addressed by a sociological, historical, philosophical, assessment, or research perspective.

**Prereq.:** Permission of chairperson.

**FOUN 5880 Special Topics in Foundations of Education 1-3 s.h.**

An advanced study of sociological, historical, and/or philosophically based research which provides analysis of a particular educational issue with special emphasis on implications for diverse populations and/or diverse school settings.

**Prereq.:** Permission of chairperson.

## Health Education Physical Education

**HEPE 1567 Performance and Analysis of Invasion Games 3 s.h.**

Analysis, performance, content and strategy development, teaching, and assessing of invasion games (basketball, football, soccer, team handball, rugby, ultimate frisbee, field hockey, floor hockey, and lacrosse). Two hour lecture, two hour lab.

**HEPE 1573L Tactical Approach to Teaching Team Sports 1 s.h.**

Analysis and practice in performance and strategy development, for teaching team sports using a concept-based model. Two hours lab per week.

**Prereq.:** Physical Education major.

**HEPE 1574 Performance and Analysis of Target and Fielding Games 3 s.h.**

Analysis, performance, content and strategy development, teaching, and assessing of target and field games (golf, bowling, softball, cricket and other lifetime activities). Two hour lecture, two hour lab.

**HEPE 1575 Performance and Analysis of Net and Wall Games 3 s.h.**

Analysis, performance, content and strategy development, teaching, and assessing of net/wall games (tennis, raquetball, volleyball, badminton). One hour lecture, two hours lab.

**HEPE 1577 Performance and Analysis of Aquatic Activities 1 s.h.**

Analysis and practice in performing and teaching swimming, diving, water safety skills, and aquatic exercise. Two hours lab.

**Prereq.:** Physical education major.

**HEPE 1579 Rhythmic Movement for Children 1 s.h.**

Content and teaching strategies related to rhythmic movement for children grades PreK-4. Rhythmic movement skills and concepts explored to provide successful dance experiences for children. One hour lecture, one hour lab.

**Prereq.:** Physical education major.

**HEPE 2610 Introduction to Outdoor Pursuits 3 s.h.**

Introduction to outdoor education including participation in initiatives, cooperative, orienteering, hiking, high and low ropes, and water based outdoor pursuits. Focus on activities to challenge by choice. One hour lecture, two hour lab.

**HEPE 2624 Physical Education for Children in Early Childhood Settings 3 s.h.**

Principles, methods, materials, and organization of activities for preschool-grade 3 children. Active participation, approximately 15-20 hours field work in area preschools/schools.

**Prereq.:** 30 hours.

**HEPE 2628 Movement for Early Childhood 3 s.h.**

Movement education approach to teaching fundamental movement patterns, educational dance, gymnastics, games, and creative activities for grades PreK-3. Two hours lecture, two hours lab. 20 hours field experience required.

**Prereq.:** Physical Education major.

**HEPE 2650 Ethics in Sport and Coaching 2 s.h.**

An introduction to ethics in sport, exploring ethical issues in relation to coaching K-12 student athletes. Skills related to exploring ethical dilemmas and ethical decision making. Discussion of District, State and National policies related to ethics.

**HEPE 2661 Games Analysis 3 s.h.**

Analysis, adaptation and creation of games for varying developmental levels and environmental situations in grades 3-12. Large and small group, coeducational, field day events, self-challenging, multicultural activities, and developmentally appropriate lead-up games. Two hours lecture, two hour lab.

**Prereq.:** 4 s.h. from among HEPE 1567, HEPE 1574, HEPE 1575 and HEPE 1577.

**HEPE 2672 Mechanical Principles of Movement 3 s.h.**

Knowledge and methods of mechanical concepts as they relate and apply to the structure and function of human movement. Muscular structure and function in relation to physical movement, analysis of fundamental human movements. Includes the physical characteristics of the human body and applicable principles of mechanical physics. Two hours lecture. Two hours lab.

**Prereq.:** BIOL 1552, BIOL 1552L or BIOL 1545, BIOL 1545L.

**HEPE 2689 Scientific Basis of Fitness 3 s.h.**

Introduction to components of fitness and their physiological basis. Role of exercise and physical activity in the life of the P-12 learner. Application of training principles and participation in a variety of fitness activities. Introduction to physical fitness assessment. Two hour lecture, two hour lab.

**Prereq.:** Physical Education major and PHLT 1568.

**HEPE 3702 Health Education Theory and Methods 4 s.h.**

Theory, curriculum and methods for teaching health education in P-12 classroom. Provides both content and pedagogical knowledge. 3 hour lecture and 2 hour lab. 20 hours of field experience required.

**Prereq.:** PHLT 1568.

**Concurrent with:** HEPE 3767.

**HEPE 3715 Health Education for Middle School 3 s.h.**

Curriculum, methods and materials for teaching middle school health education. Two hour lecture, Two hour lab. 60 hours field experience required.

**Prereq.:** HEPE 3702, BIOL 1545 and BCOE upper-division status.

**HEPE 3716 Health Education for High School 3 s.h.**

Curriculum, methods and materials for teaching high school health education. Two hour lecture and two hour lab. 60 hours field experience required.

**Prereq.:** HEPE 3702, BIOL 1545 and BCOE upper-division status.

**HEPE 3740 Coaching the Young Athlete 3 s.h.**

This course will address the pedagogy and practice of coaching sports with emphasis on youth sport development. The course will include coaching techniques, responsibilities, interaction with students and parents, injury prevention and sport psychology utilizing discussion, case method study, and practical application. The intent of the course is to help the student develop a coaching philosophy to positively affect youth sport development.

**Prereq.:** HEPE 2689.

**HEPE 3750 Organization and Management of Sport Programs and Events 2 s.h.**

The purpose of the course is to provide students with an understanding of the responsibilities of administrators and coaches involved in K-12 athletics. Content will focus on sport team scheduling, athletic facility requirements, fundraising, budgeting, event planning, career networking/advancement, coaching acquisition and termination, and increasing sport programs of an athletic program. Students will be introduced to the requirements of set policies by the school district, athletic conferences, state athletic associations, state and federal law and the National Collegiate Athletic Association (NCAA).

**Prereq.:** Junior standing.

**HEPE 3766 Principles and Analysis of Motor Development 3 s.h.**

Application of a lifespan motor development approach to critically analyzing movement patterns. Emphasis on motor development including biomechanical aspects of movement, and on teaching applications. Two hours lecture, two hours lab. 8 hours field experience required.

**Prereq.:** BIOL 1545 and BIOL 1545L.

**HEPE 3767 Pedagogy in P-12 Health Education and Physical Education 3 s.h.**

Effective teaching practices and development of skills including classroom management, lesson planning, and selection of appropriate methods of instruction. Peer teaching and reflection. Two hours lecture, two hours lab. 20 hours of field experience required.

**Prereq.:** 20 s.h. in major and HEPE 3766.

**HEPE 3768 Advocacy and Best Practices in Health and Physical Education 2 s.h.**

Emphasizes the advocacy role of the health and physical educator. Includes use of research and best practices documents to advocate for the inclusion of health and physical education for all P-12 learners. One hour lecture, two hour lab.

**Prereq.:** 20 s.h. in Physical Education major or Health Education major and HEPE 3767.

**HEPE 3780 Methods of Teaching Dance 2 s.h.**

Rhythm and movement fundamentals and forms: folk, square, social and aerobic. Methods and materials of teaching dance culminating in clinical or field experiences. One hour lecture, two hours lab.

**Prereq.:** HEPE 3767.

**HEPE 4808 Standards Based Assessment in Health and Physical Education 3 s.h.**

Theory, purposes, procedures, and uses of standards-based assessment for teaching P-12 health and physical education settings including cognitive, motor, and affective domains. Limitations of traditional assessment. Practical experience in designing assessments, collecting and analyzing data. Three hours lecture. 10 hours field experience required.

**Prereq.:** Physical Education or Health Education major and admission to BCOE upper-division status.

**HEPE 4851 Cultural Aspects of Physical Education and Sport 3 s.h.**

Survey of major historical, psychosocial developments, and philosophical issues in physical education and sport from ancient times to the present.

**Prereq.:** Junior standing.

**HEPE 4852 Psychosocial Aspects of Physical Education and Sport 2 s.h.**

Survey of major psychosocial principles, developments and concerns as they relate to the participant in physical activity and sport.

**Prereq.:** 20 s.h. in major.

**HEPE 4860 Internship for Coaching Education 3 s.h.**

The internship will consist of 180-220 field hours. The field experience will be in a youth sport and/or P-12 youth sport program. Examination of issues related to the coaching early childhood, middle childhood, special education, or adolescents/young adults program.

**Prereq.:** HEPE 3740, HEPE 3750, and HEPE 3767.

**HEPE 4876 Teaching of Elementary Physical Education 3 s.h.**

Curriculum, methods and materials for teaching elementary physical education. Critical task includes completion of a learning segment in area schools. Two hours lecture, two hours lab. 60 hours field experience required.

**Prereq.:** HEPE 3767 and BCOE upper-division status.

**HEPE 4878 Teaching of Middle/Secondary Physical Education 3 s.h.**

Curriculum, methods and materials for teaching secondary physical education. Critical task includes completion of a learning segment in area schools. Two hours lecture, two hours lab. 60 hours field experience.

**Prereq.:** HEPE 3767 and BCOE upper-division status.

**HEPE 4889 Selected Topics in Health and Physical Education 2 s.h.**

In depth study of special topics in Health and/or Physical Education. Topics to be determined. Two hour lecture. 30 hours field experience required.

**Prereq.:** HEPE 3768.

**Concurrent with:** HEPE 3702.

**HEPE 4895 Introduction to Adapted Physical Education 4 s.h.**

Introduction to developmentally appropriate, inclusive physical education for P-12 learners. Emphasis on acquiring a basic understanding of planning, delivering, and assessing appropriate inclusive physical education experiences for all children. Approximately 20 hours of field work. Three hour lecture, two hour lab.

**Prereq.:** HEPE 3766.

**HEPE 4899 Physiological Effects of Exercise on Children and Adolescents 3 s.h.**

Examining the body's response to physical activity in relation to the P-12 learner. Study of how physical activity influences the body's systems. Primary focus is application in a physical education setting.

**Prereq.:** HEPE 3766.

**HEPE 6900 Pedagogical Analysis 3 s.h.**

Description and analysis of pedagogical theories, models, and practices in physical education with emphasis on teaching methodology, the improvement of teaching skills, and planning for maximum student learning.

**HEPE 6901 Sport in Society 3 s.h.**

Sport studied as a social system interdependent with culture and society and as a social institution which is related to, or a part of, other basic institutions, such as the family, education, religion, the economy, politics, and the mass media.

**Prereq.:** HEPE 4851.

**HEPE 6903 Curriculum Development 3 s.h.**

Progressive development of the physical education curriculum for P-12 based on an analysis of contemporary curriculum theories and models in physical education. Emphasis on program planning and theory to practice.

**HEPE 6905 Contemporary Issues in Sport Pedagogy 3 s.h.**

A critical investigation and analysis of contemporary sport pedagogy issues, trends, problems, and concerns.

**HEPE 6910 Teaching of Motor Skills 3 s.h.**

Analysis of research on motor learning and its application to the acquisition, the teaching, and the coaching of movement skills.

**HEPE 6920 Mechanical Analysis of Motor Movements 3 s.h.**

Scientific basis for teaching correct form for the exact execution of movement skills through the fundamental laws of physics pertaining to motion. Analysis of various motor activities to determine the proper mechanics for obtaining the most effective and efficient results.

**HEPE 6945 Technological Integration in Physical Education 2 s.h.**

An analysis of the instructional design process and technology integration applied to physical education. Includes step-by-step process of designing, implementing, and evaluating the effectiveness of technological instructions into both existing and new units of instruction.

**Prereq.:** CSIS 1500 Computer Literacy or equivalent.

**HEPE 6955 Physical Activity Principles for Children and Adolescents 3 s.h.**

Scientific basis of physical fitness and its physiological basis. The role of health-related and performance-related physical fitness in physical activity and the lifespan. Analysis of acute responses and chronic adaptations of the body to the physiological demands of physical activity. A primary focus of the practical application to the teaching of physical education and sport coaching.

**Prereq.:** HEPE 4899 or equivalent.

## Secondary Education

**SED 3706 Principles of Teaching Adolescents 3 s.h.**

Classroom management, instructional strategies, and technology integration for diverse learners in the high school classroom. Cross-disciplinary curriculum exploration. Reflection and analysis of peer and classroom teaching experience. 30 hours of field experience required.

**Prereq.:** BCOE upper-division status.

**Coreq.:** TERG 3711.

**SED 4800B Special Methods: Integrated Business 3 s.h.**

Techniques used in teaching integrated business subjects. Observation of teaching in a vocational setting, presentation of a lesson in a secondary or vocational school, unit development, reflective writing. Organization, administration, implementation, and evaluation of vocational business education programs at the secondary and adult education levels.

**Prereq.:** BCOE upper-division status and approval of chairperson.

**Coreq.:** SED 3706, TERG 3711 and FOUN 3710.

**SED 4800C Science Methods for Adolescent and Young Adult Learners 3 s.h.**

Using NSTA/NCATE and Ohio content standards, candidates establish and maintain learning environments that provide diverse students with a holistic, interdisciplinary understanding of science. Background for teaching science, instructional strategies, classroom management, planning instruction, assessment, professional development, integration of content with inquiry emphasized. 80 hours field experience required.

**Prereq.:** BCOE upper-division status, SED 3706, 24 s.h. science.

**Concurrent with:** SED 4800L.

**SED 4800E English Methods for Adolescent and Young Adult Learners 3 s.h.**

Exploring and demonstrating reflective teaching methods for adolescent learning of English: planning instruction, execution of teaching/learning activities, representations of English concepts, authentic assessment, English communication, purposeful use of instructional technology, classroom management for effective teaching. 80 hours field experience required.

**Prereq.:** BCOE upper-division status, SED 3706.

**Concurrent with:** SED 4800L.

**SED 4800L Laboratory Experience for Teaching Adolescent and Young Adult Learners 0 s.h.**

Laboratory Experience for creating effective classroom environments that are developmentally appropriate, engaging, and integrate the use of technology to positively impact learning. Peer and clinical teaching designed to meet needs of all learners.

**Coreq.:** One of SED 4800C, SED 4800S, SED 4800M, SED 4800E.

**SED 4800M Mathematics Methods for Adolescent and Young Adult Learners 3 s.h.**

Exploring and demonstrating reflective teaching methods for adolescent learning of mathematics: planning instruction, execution of teaching/learning activities, multiple representations of mathematical concepts, problem-solving strategies, authentic assessment, manipulative materials, mathematical communication, purposeful use of instructional technology, classroom management for effective teaching. 80 hours field experience required.

**Prereq.:** BCOE upper-division status and SED 3706.

**Concurrent with:** SED 4800L.

**SED 4800S Social Studies Methods for Adolescent and Young Adult Learners 3 s.h.**

Theory and practice in learning how to plan, execute, and evaluate social studies lessons that are empowering, interesting, and reflective. Topics include: creating thematic unit plans; interpreting academic standards; writing instructional objectives; creating authentic learning activities; authentic assessment; classroom management and democratic discipline.

**Prereq.:** BCOE upper-division status and approval of chairperson.

**Coreq.:** SED 3706, TERG 3711 and FOUN 3710.

**SED 4827 Supervised Student Teaching: Language (K-12) 1-10 s.h.**

Sixteen weeks supervised student teaching experience in foreign language education.

**Prereq.:** passing scores on OAE exams, BCI/FBI background check, BCOE upper-division status.

**Concurrent with:** student teaching seminar.

**Gen Ed:** Capstone.

**SED 4842 Supervised Student Teaching: High School 1-10 s.h.**

Sixteen weeks supervised student teaching experience in adolescent/young adult education.

**Prereq.:** BCOE upper-division status, passing scores on OAE exams, BCI/FBI background check.

**Concurrent with:** student teaching seminar.

**Gen Ed:** Capstone.

**SED 4842A Student Teaching Seminar for Secondary Education 2 s.h.**

Seminar topics are based on research and theory related to pedagogy, classroom management, cultural bias, academic language, differentiation, collaboration, and reflection. Examination of OSTP standards and professional ethics. Completion of the edTPA is required.

**Coreq.:** One of SED 4827, SED 4842, SED 4843, SED 4844, SED 4845, or SED 4846.

**SED 4843 Supervised Student Teaching: Art (K-12) 1-10 s.h.**

Sixteen weeks supervised student teaching experience in visual arts education.

**Prereq.:** passing scores on OAE exams, BCI/FBI background check, BCOE upper-division status.

**Concurrent with:** student teaching seminar.

**Gen Ed:** Capstone.

**SED 4844 Supervised Student Teaching: Music (K-12) 1-10 s.h.**

Sixteen weeks supervised student teaching experience in music education.

**Prereq.** passage of OAE exams, BCI/FBI background check, upper division admission. Grading is CR/NC.

**Prereq.:** Passage of OAE exams, BCI/FBI background check, BCOE upper division status.

**Coreq.:** SED 4842A.

**Concurrent with:** student teaching seminar.

**Gen Ed:** Capstone.

**SED 4845 Supervised Student Teaching: Health (K-12) 1-10 s.h.**

Sixteen weeks supervised student teaching experience in health education.

**Prereq.:** passing score on OAE exams, BCI/FBI background check, BCOE upper-division status.

**Concurrent with:** student teaching seminar.

**Gen Ed:** Capstone.

**SED 4846 Supervised Student Teaching: Physical Education (K-12) 1-10 s.h.**

Sixteen weeks supervised student teaching experience in physical education.

**Prereq.:** passing score on the OAE exams, BCI/FBI background check, BCOE upper-division status.

**Concurrent with:** student teaching seminar.

**SED 4850 Supervised Student Teaching: Career/Technical 1-10 s.h.**

Full-time 16 week student teaching in grades 4-adult supervised by University faculty and experienced career/technical practitioners licensed in the teaching subject of the candidate. Grading is CR/NC.

**Prereq.:** BCOE upper-division status, passing scores on PRAXIS II content and PLT test, criminal background check, and completion of adolescent/young adult or career/technical program excluding student teaching and student teaching seminar.

**Coreq.:** SED 4842A.

**SED 6910 Supervision Secondary Schools 2 s.h.****SED 6920 Field Experience Supervision 2 s.h.****SED 6931 The Secondary School Curriculum 3 s.h.**

Historical development of the American secondary school curriculum, present nature, and recent developments. Study of reports, experiments, and typical programs. The roles of supervisors, administrators, teachers, pupils, and public in the development of curriculum.

**Prereq.:** Admission to the School of Graduate Studies and Research.

**SED 6935 Curriculum Development in VBME 2 s.h.****SED 6957 Practicum in Language Arts 2 s.h.****SED 6958 Instructional Supervision for Nonschool Personnel 3 s.h.**

Strategies of teaching and supervision, including the use of media, the evaluation of instruction and pupil performance, and related personnel issues will be covered. The course is designed for personnel in nonschool settings who have teaching or supervisory responsibility in in-service programs.

**Prereq.:** Permission of instructor.

**SED 6965 Supervised Student Teaching: High School 5 s.h.**

Full-time 16-week student teaching in grades 7-12 supervised by University faculty and experienced A/YA practitioners licensed in the teaching subject of the candidate. To be taken concurrently with SED 6965A. Grading is S/U.

**Prereq.:** Completion of all requirements for initial Adolescent/Young Adult licensure and permission of advisor.

**SED 6990 Independent Study 1-4 s.h.**

Individual investigation of advanced topics under guidance of selected staff.

**Prereq.:** FOUN 6904.

**SED 6999 Thesis 2-6 s.h.**

**Prereq.:** Approval of department graduate faculty and chair.

**SED 7025 Seminar in Secondary Education 1-5 s.h.**

Study of selected topics chosen by the secondary education staff. May be repeated by non-degree students. See TCED 7032.

**Prereq.:** Permission of instructor.

**SED 7042 Professional Development for Classroom Teacher Educators 2 s.h.**

A restricted professional development course for classroom teacher educators invited to supervise the instructional program of student teachers and field experience students. The course concentrates on developing analytical observation, conferencing, evaluation, and supervision skills based on scientific knowledge and theoretical constructs.

**Prereq.:** Invitation from YSU and endorsement from home school district to serve as a classroom teacher educator.

**Cross-listed:** EMCE 7042.

## Special Education

**SPED 2630 Individuals with Exceptionalities in Society 3 s.h.**

Characteristics, adjustment problems, special needs with emphasis on educational solutions, co-teaching, and inclusionary practices. The laws and implementation; placement, programming, due process, resources recommended for accommodation of exceptional learners in diverse settings.

**SPED 2631 Intervention Strategies with Special Needs Children in Early Childhood 3 s.h.**

Development of teaching skills of the regular early childhood educator in meeting the intervention needs of young children with special needs (disabilities, at-risk, and/or gifted) in inclusive classrooms and programs. Emphasis on classroom support for IEP/IFSP goals and objectives.

**Prereq.:** PSYC 3755.

**SPED 3715 Characteristics and Needs of Children and Youth with Mild/Moderate Disabilities 3 s.h.**

Description and classification of students with mild/moderate disabilities and the impact on academic, social and emotional development. Relationship to the contributions of diverse disciplines to theory and practice. A developmental approach to motor, perceptual, cognitive, language and social-emotional functioning within inclusive educational settings. Use of Universal Design for Learning as a framework for accessible and varied learning opportunities for individuals with exceptionalities. Field Requirement of 15 hours.

**Prereq.:** SPED 2630.

**SPED 4831 Assessment and Referral in Early Childhood 3 s.h.**

Development of skills in referral and assessment techniques for the regular early childhood educator with emphasis on both formal and informal methods such as observation, authentic assessment, standardized measures and interviewing. Attention to children with disabilities and/or gifts and talents.

**Prereq.:** Upper-division status.

**SPED 4839 Supervised Student Teaching: Moderate/Intensive Intervention Specialist 4-12 s.h.**

Grading is CR/NC.

**Prereq.:** FOUN 1501, FOUN 3708; PSYC 3709; EDTC 3771; SPED 2630 or SPED 2631, SPED 5828, SPED 5833, SPED 5835, SPED 5851, SPED 5853, SPED 5863, SPED 5864, SPED 5866, SPED 5867; senior status and approval of the chair.

**Concurrent with:** SPED 4869.

**Gen Ed:** Capstone.

**SPED 4849 Supervised Student Teaching: Mild Moderate/Disabilities 4-12 s.h.**

Grading is CR/NC.

**Prereq.:** FOUN 3708, completion of the reading block (TERG 2601, TERG 3701, TERG 3702, TERG 3703) & STEP block (SPED 4854, SPED 5835, SPED 5864, TERG 3703) SPED 2630 or SPED 2631, SPED 5853, SPED 5863, SPED 5866, senior status, and approval of the chairperson; see requirements for student teaching under BCOE.

**Concurrent with:** SPED 4869.

**Gen Ed:** Capstone.

**SPED 4854 Cross-Curricular Interventions 4 s.h.**

Field application of principles of reading in the content areas, organization and implementation of cross-curricular content areas across grade levels. Includes management of special education/inclusionary classrooms; part of a ten-week intensive field experience entitled STEP (Special Teacher Education Program).

**Prereq.:** SPED 5828, SPED 5834, or SPED 5868.

**SPED 4857 Applied Technology in the Education of Children and Youth with Disabilities 4 s.h.**

Explores various concepts related to the use of applied technology for children and youth with disabilities. Includes assistive technology and alternative modes of communication as well as the use of appropriate software.

**Prereq.:** Admission to upper-division COE status.

**SPED 4869 Student Teaching Seminar for Special Education 2 s.h.**

Applied behavior management and classroom environment, reflective teaching techniques. Daily lessons, the student teacher's interactions with children and youth, teachers and administrators. Grading is CR/NC.

**Prereq.:** Concurrent with: SPED 4839 or SPED 4849.

**Concurrent with** student teaching.

**SPED 5810 Introduction to Sign Language 3 s.h.**

Deaf Culture, ASL, and English Sign Language differences will be discussed. Students will acquire basic proficiency in sign language.

**Prereq.:** Special approval.

**SPED 5828 Education for Children and Youth with Emotional and Behavior Needs 4 s.h.**

Instruction, curriculum and program development for youth who are identified with emotional disturbance and as a result are often in conflict with educational and social systems. Successful completion of 30-hour field experience is required.

**Prereq.:** BCOE upper-division status.

**SPED 5833 Characteristics and Needs of Exceptional Children and Youth with Moderate/Intensive Disabilities 3 s.h.**

Identification and intervention in critical areas of development for individuals with moderate/intensive disabilities including autism. Developing objectives, planning and implementing adapted curriculum in consultation with interdisciplinary specialists.

**Prereq.:** Upper-division status in COE, SPED 3715.

**SPED 5834 Educational Strategies and Methods for Children and Youth with Moderate/Intensive Disabilities 4 s.h.**

Curriculum planning, teaching methods, habilitation and rehabilitation for persons with multiple and/or severe developmental disabilities. Practicum included.

**Prereq.:** Upper-division status in COE, SPED 5833.

**SPED 5835 Classroom Management for Exceptional Children and Youth 4 s.h.**

Development, implementation and evaluation of behavior management plans and strategies for students with exceptionalities in the classroom environment. Behavior management techniques to facilitate learning, self-management, and the development of social skills. Communicating effective management programs to parents, caregivers, teachers, and stakeholders. Part of the STEM block (field requirement).

**Prereq.:** Upper-division status in BCOE and special approval.

**SPED 5851 Transition Planning, Social Skill Development and Health-Related Issues 3 s.h.**

Emphasis on lifelong career orientation and the development and implementation of a K-12 prevocational/vocational curriculum. Effective teaching of interpersonal communication and social skills. Classroom climate, self-esteem, health-related issues. Integration of practical experiences in the classroom, home, and community.

**Prereq.:** Upper-division status in COE.

**SPED 5852 Prog Development Instructional Strategies for Learners with Moderate to Intensive Except Learn Needs 3 s.h.**

This course is designed to expand technical terminology and applied practices for candidates working towards licensure for students with moderate to intensive exceptional learning needs. Candidates will create individualized objectives, apply evidence-based practices, and report progress. Successful completion of a 30 hour field experience is required.

**Prereq.:** Admission to BCOE Upper Division, SPED 5834.

**SPED 5853 Diagnosis and Intervention in Mathematics for Special Education 3 s.h.**

Principles, practices, materials and aids for teaching mathematics in special education. Diagnostic and evaluation procedures; individualized instructional techniques; observation, tutoring, and participation. Field experience required.

**Prereq.:** Upper-division status in COE.

**SPED 5858 Intervention Concepts and Strategies in Early Childhood Special Education 2 s.h.**

Review and analysis of the methods by which young children construct knowledge about their physical, social and intellectual worlds. Study of patterns of normal and atypical development from birth through age eight, as well as the development of appropriate models for effective intervention.

**Prereq.:** PSYC 3755.

**SPED 5864 Service Coordination, Collaboration, and Consultation for Students with Special Needs 3 s.h.**

Methods and strategies for the cooperation and involvement of related services professionals, parents, and children in the coordination of comprehensive educational and service plans. Collaboration, communication skills and sensitivity to individual and cultural differences are stressed. Part of the STEP block (field requirement).

**Prereq.:** Upper-division status in BCOE and special approval.

**SPED 5865 Workshop in Special Education 1-4 s.h.**

Intensive study and related activities in one or more of the following special education curriculum areas: trainable mentally retarded, educable mentally retarded, learning disability/behavior disorder, multi-handicapped. May be repeated if content is different.

**Prereq.:** Admission to upper-division COE status.

**SPED 5866 Assessment and Referral of Exceptional Children and Youth for the Intervention Specialist 3 s.h.**

Development of skills in referral and assessment techniques in the areas of mild/moderate and moderate/intensive disabilities. Informal and formal methods including observation, authentic assessments, standardized measures, interviewing. Referral, initial and subsequent evaluation, annual review concerns.

**Prereq.:** Upper-division status in COE.

**SPED 5867 Intervention and Remediation of Receptive/Expressive Language Dysfunction 3 s.h.**

Theory and practice of intervention and remediation of basic cognitive processes especially in the areas of receptive and expressive language and cognitive skills for the intervention specialist.

**Prereq.:** Upper-division status in COE.

**SPED 5868 Mild/Moderate Disabilities Practicum 4 s.h.**

Diagnostic procedures used to develop a comprehensive assessment of a child's current functioning. Individualized education program/case study developed and partially implemented.

**Prereq.:** Upper-division status in COE, SPED 5866 and SPED 5867.

**SPED 5870 Independent Study in Special Education 1-4 s.h.**

Individual work under special education staff guidance; curriculum development or special education areas; individual problems in community agencies or school.

**Prereq.:** Admission to upper-division COE status.

**SPED 5871 Characteristics and Needs of Gifted Children 3 s.h.**

Introduction to gifted education. Overview of the theoretical and research base for gifted education, including appropriate classroom environments, teacher qualifications, and support services to meet the diverse social, emotional, and intellectual needs of gifted children. Current program standards.

**Prereq.:** Admission to COE upper-division status.

**SPED 5872 Assessment and Referral for Children and Youth with Exceptionalities for the Intervention Specialist 3 s.h.**

Development of skills in referral and assessment techniques for the special educator in the areas of moderate/intensive disabilities. Emphasis will be given to informal and formal methods such as observation, authentic assessment, alternate assessment, rubrics, inventories, interviewing, task analysis, functional behavioral analysis, curriculum based measurement, DIBELS/SWIS, and formal standardized measures.

**Prereq.:** Admission to BCOE Upper Division Status.

**SPED 5873 Communication and Literacy Skills for Learners with Significant Disabilities 3 s.h.**

This course focuses on enhancing functional communication and literacy skills of students with severe disabilities. Assessment and strategies to increase communication form, function and literacy are covered. The course addresses aided and non-aided augmentative systems and alternative communication systems with an emphasis on using a multi-modality approach.

**Prereq.:** Admission to BCOE Upper Division Status.

**SPED 5878 Teaching Gifted and Talented Students 4 s.h.**

Theory and organization of curriculum with design and integration of content subjects into varying models. Wide range of strategies and identification of resources and materials as well as investigations in educational technology and appropriate applications for gifted children.

**Prereq.:** Upper division status in COE; SPED 5871 and permission of instructor.

**SPED 5965 Special Education Workshop 1-5 s.h.**

A workshop designed to examine contemporary topics in the field.

**SPED 6900 Issues, Trends & Foundations in Special Education 3 s.h.**

Exploratory study of the issues, trends, and foundations in special education. Evidence-based principles, laws and policies, diverse and historical points of view, and human issues that focus on the education of individuals with mild or intensive exceptional learning needs are examined. The relationship of special education to the organizations and functions of schools/agencies is explored.

**Prereq.:** Admission into the program and approval of the department chair.

**SPED 6901 System-Wide Consultation/Collaboration in the Schools 3 s.h.**

Current educational practices have made collaboration an essential way education professionals do their work. This course will cover the theoretical bases and consultation/collaboration skills necessary for affecting change in the educational environment from a system wide perspective. The aim of this course is to prepare Intervention Services students to function as collaborative consultants promoting systematic and planned strategies for use within the public schools and with families with children with disabilities.

**SPED 6905 Cultural/Ethnic Issues Relating to Youth and Families 3 s.h.**

Introduces pertinent theoretical cultural issues which relate to mental health professionals as they work with diversified populations. In particular, therapeutic skill enhancement of professionals will be advanced, since all counseling may be seen as cross-cultural. Group work and experiential exercises will provide an avenue for the professional and personal cultural growth of each participant. The goal is to also enhance participant's level of cultural sensitivity.

**SPED 6906 Characteristics and Behaviors of Learners with Mild/Moderate and Moderate/Intensive Exceptional Le 3 s.h.**

Course focuses on federal and state laws and initiatives that influence the operations and decisions of educational opportunities for students with mild/severe disabilities. Topics include categories of disabilities, current trends and best practices for instruction and assessment. Also, recommended collaboration strategies for educators, administrators and families.

**Prereq.:** Successful completion or concurrent enrollment in SPED 6900.

**SPED 6909 Assessment and Intervention for Students with Low Incidence Disabilities 3 s.h.**

Emphasis will be on current most effective practices of the professional collaboration process across three tiers of service to include specific models and strategies for students in general education and especially those with autism and/or a low incidence disability. Candidates will develop a team training model and will evaluate evidence-based practices.

**SPED 6911 International Area Study: Project Learning Around the World 3 s.h.**

This course is designed to enhance mental health or teacher's professional and personal level of sensitivity and competence via introducing them to innovative and traditional forms of intervention or healing in community and school settings in a developing country. Students will participate in philanthropic activities by helping to gather and deliver educational supplies via Project Learning Around the World ([www.platw.org](http://www.platw.org)).

**SPED 6912 Multilevel Tier Interventions Across General Education and Special Education Programming 3 s.h.**

Direct experiences in planned multilevel interventions across the three tiers of services within educational school systems for regular education and children with disabilities. Participation in RTI team meetings, curriculum academic and applied and functional behavioral analysis, progress monitoring, goal attainment scaling and determining effectiveness of intervention plans will be introduced.

**SPED 6914 Behavior Management for Educators 3 s.h.**

Classroom application consistent with the study of behavior management with a focus on ethical strategies and implementation of intervention techniques for learners with mild/intensive exceptional learning needs. Successful completion of a 30-hour field experience is required.

**Prereq.:** Successful completion of SPED 6906 or concurrent enrollment in SPED 6906.

**SPED 6915 Classroom Management and Crisis Intervention for Learners with Severe Emotional and Behavior Disor 3 s.h.**

Behavior analysis, behavior management, instruction, curriculum and program development for youth with severe emotional and/or behavior disorders.

Advanced behavior change interventions and a practicum consisting of work in the field with emotionally and/or behaviorally disturbed youth required.

**Prereq.:** Successful completion of SPED 6909.

**SPED 6927 Curriculum Design, Adaptations and Resources for Learners with Mild/Moderate Exceptional Learning 3 s.h.**

Knowledge of curriculum terminology approaches and models, content, and design to provide and enhance access to the general curriculum for students with exceptional learning needs. Course focuses on the skills to select and implement curricular adaptations for learners with exceptional learning needs within the general education classroom.

**Prereq.:** Successful completion of SPED 6906.

**SPED 6928 Transition and Life Skill Supports for Learners with Moderate/Intensive Exceptional Learning Needs 3 s.h.**

Course focuses on best practices of the professional collaboration process with regard to the transition process for students with moderate/intensive exceptional learning needs. Learner's individual strengths and characteristics will be considered to facilitate social, vocational and daily living skills for all learners. Successful completion of a two-hour field experience is required.

**Prereq.:** Successful completion of SPED 6906.

**SPED 6929 Assessment of Gifted and Exceptional Learners 3 s.h.**

Course focuses on the educational assessment process as it applies to exceptionalities (learners with disabilities as well as gifts and talents). Topics include a review of state and federal regulations, data collection techniques including both formal and informal methods, appropriate test preparation and interpretation, design of identification and placement procedures.

**Prereq.:** Successful completion of SPED 6906.

**SPED 6930 Instructional Methodologies for Learners with Mild/Moderate and Moderate/Intensive Exceptional Learning 4 s.h.**

This course is designed to provide candidate with the opportunity to research, study, apply and analyze instructional strategies and delivery systems in the four major content areas. The candidates will use the referenced strategies to both support and promote single subject and cross-curricular high quality instruction for candidates with special needs.

**Prereq.:** Successful completion of SPED 6914, SPED 6927, SPED 6928, SPED 6929.

**SPED 6931 Clinical Experience-Learners with Exceptional Learning Needs 1 3 s.h.**

Supervised clinical experience incorporation theory, planning and implementation of services for students with mild/moderate learning needs. Weekly seminars will connect theory to practice.

**Prereq.:** SPED 6906, SPED 6927, SPED 6928, SPED 6929, SPED 6930 or taken concurrently with SPED 6930 and passage of state licensure exam.

**SPED 6932 Clinical Experience-Learners with Exceptional Learning Needs 2 3 s.h.**

Supervised clinical experience incorporation theory, planning and implementation of services for students with mild/moderate learning needs. Weekly seminars will connect theory to practice.

**Prereq.:** SPED 6906, SPED 6927, SPED 6928, SPED 6929, SPED 6930, SPED 6931 and passage of state licensure exam.

**SPED 6965 Special Topics in Disabilities Education 1-4 s.h.**

Workshop will include information on various current topics appropriate to the education of students with disabilities. These include assessment, identification, and instructional processes.

**Prereq.:** PRAXIS passage.

**SPED 6980 Topical Seminar in Special Education 1-4 s.h.**

Selected topics in special education. May be repeated for different content.

**SPED 6981 Seminar in Special Education 3 s.h.**

This course details current issues in the field of special education involving research, pedagogy, methodologies, and application. Emphasis is on the intervention and remediation of receptive/expressive language dysfunctions, as well as other issues related to children and youth with disabilities.

**Prereq.:** SPED 6983.

**SPED 6982 Educational Assessment in Gifted and Special Education 3 s.h.**

The course focuses on the educational assessment process as it applies to students with exceptionalities. Topics include a review of state and federal regulations; data collection techniques, including both formal and informal methods; appropriate test preparation and interpretations; and design of identification and placement procedures.

**Prereq.:** SPED 5871.

**SPED 6984 Major Concepts and Program Design for Students in Special Education 3 s.h.**

Major concepts, program development, and program evaluation involving youth with special needs are parts of this course. Programs related to the transition process will be studied and reviewed.

**SPED 6986 Severe Behavior Disorders 3 s.h.**

A comprehensive analysis of programs and the description of the delivery of services to a wide range of seriously emotionally disturbed children and youth.

**Prereq.:** SPED 6906 or SPED 6983.

**SPED 6991 Referral and Assessment in Early Childhood Special Education 3 s.h.**

Intensive hands-on experience in referral and assessment of young children. Emphasis on philosophies and ethical considerations, as well as techniques, instruments, and the referral process. Participation within the assessment team with parents involved as equal partners in the multidisciplinary process. Written assessment reports are required based upon knowledge of child development and a variety of sources of input.

**Prereq.:** Admission to College of Education upper division; SPED 5858.

**SPED 6992 Teaching Methods in Early Childhood Special Education 3 s.h.**

Examines accepted curricular models in early childhood special education, as well as classroom management and motivation strategies as they relate to young children with special needs. Emphasizes the inclusion of parents in planning process. Students will learn to integrate curriculum with individual IEP/IFSP goals and objectives.

**Prereq.:** SPED 5858.

**SPED 6993 Health and Related Issues in Early Childhood Special Education 2 s.h.**

A study of curricular experiences focusing on those aspects of early childhood special education dealing with the instructional applications of technology and the use of adaptive equipment and related services as these relate to technologically dependent or chronically ill children.

**SPED 6994 Field Experiences in Early Childhood Special Education 4-8 s.h.**

Supervised field experiences incorporating theory, planning and implementation of services for young children with special needs.

**Prereq.:** SPED 5858, SPED 6991, SPED 6992, SPED 6993.

**SPED 6996 Teaching Strategies/Autism 4 s.h.**

Application of assessment, curriculum planning, preparation of materials and practice teaching methods for students with autism spectrum disorders and related disabilities. Methodology emphasizes most effective practices for instructing students who need academic and/or life skills curricula.

**Prereq.:** SPED 6914 or equivalent.



**SPED 6998 AAC Strategies 3 s.h.**

Assessment and application of methods to increase communication form, function, and literacy for individuals who need alternate and/or augmentative communication (AAC).

**Prereq.:** SPED 6996 and PSYC 6960 or PSYC 6990.

**SPED 6999 Field Experiences Autism/Related Disorders 3-6 s.h.**

Supervised clinical field experiences incorporating theory, planning, and implementation of services for children with autism spectrum disorders. Weekly seminars connect theory to practice. May be repeated once for a maximum of 6 s.h.

**Prereq.:** SPED 6996, SPED 6998, and PSYC 6960 or PSYC 6990.

**SPED 7021 Field Experience 1 3 s.h.****SPED 7040 Field Experience in Gifted and Talented Education 2 s.h.**

Supervised field experience that incorporates theory, planning, and implementation of curriculum for gifted and talented students. Individual conferences and completion of contracted assignments.

**Prereq.:** SPED 5871, SPED 5878, SPED 6982, SPED 6983 and COUN 5879.

**SPED 7042 Professional Development for Classroom Teacher Educators 2 s.h.**

A restricted professional development course for classroom teacher educators invited to supervise the instructional program of student teachers and field experience students. The course concentrates on developing analytical observation, conferencing, evaluation, and supervision skills based on scientific knowledge and theoretical constructs.

**Prereq.:** Invitation from YSU and endorsement from home school district to serve as a classroom teacher educator.

**SPED 7043 Instructional Leadership in Special Education 3 s.h.**

Implementation, coordination, and evaluation of quality instructional programs for exceptional, at-risk, and other students experiencing learning problems. Administrative roles and strategies related to instructional leadership, school climate, collaborative decision making, and restructuring.

**Prereq.:** COUN 6961 and SPED 7977.

**SPED 7077 Leadership in Special Education 3 s.h.**

The course focuses on leadership, administration, and supervision of a broad range of programs and services for students with exceptionalities (students with disabilities). Topics include review of theoretical foundations, historical and sociological issues as these relate to education for special populations, as well as in-depth study of federal and state legal issues, differentiated programming and procedures, student identification and placement, individualized education plans, due process, least restrictive environment, and program monitoring and evaluation.

## Teacher Education Middle Childhood

**TEMC 3702 Teaching & Learning in Middle Schools 3 s.h.**

Physical, social, emotional, intellectual, and moral development within social and cultural contexts to uncover implications for developmentally and culturally responsive curriculum and instruction.

**Prereq.:** BCOE upper-division status.

**TEMC 3703 Thematic Instruction and Assessment Methods in Social Studies 3 s.h.**

Investigation and application of principles from history, geography, civics, economics, and related fields to create appropriate learning experiences for early adolescents. Exploration of middle grade level group and individual assessment, thematic, problem-solving instructional approaches, and reflective evaluation of learning in a field-based setting.

**Prereq.:** TEMC 3702, BCOE upper-division status, and approval of chairperson.

**Coreq.:** TEMC 4801 and one of TEMC 3704, TEMC 3705, or TEMC 3706.

**TEMC 3704 Teaching Mathematics in the Middle School 3 s.h.**

Focus on identifying and modeling strategies used for problem solving, communicating, and reasoning in mathematics. Learning to use mathematical connections to stimulate diverse students' development of math concepts and skills and creating learning environments in which students feel free to take risks. Field experience combining mathematics pedagogy/methodology in a middle grade classroom.

**Prereq.:** TEMC 3702, BCOE upper-division status and approval of chairperson.

**Coreq.:** TEMC 4801 and one of TEMC 3703, TEMC 3705, or TEMC 3706.

**TEMC 3705 The Teaching of Science in the Middle School 3 s.h.**

Using NSTA/NCATE and Ohio Model guidelines as a framework, students focus on establishing and maintaining learning environments that provide diverse students with a holistic, interdisciplinary understanding of science. Topics include goals formation, planning instruction, instructional strategies, resource selection, assessment procedures. Promotion of the use of science processes and problem-solving skills for life-long learning, the integration of science/technology/society. Field experience combining science pedagogy/methodology in a middle grades classroom.

**Prereq.:** TEMC 3702, 12 s.h. science, BCOE upper-division status, and approval of chairperson.

**Coreq.:** TEMC 4801 and one of TEMC 3703, TEMC 3704, or TEMC 3706.

**TEMC 3706 Teaching Language Arts in the Middle School 3 s.h.**

Integrated strategies for enabling diverse students to participate successfully in the activities of a literate society through listening, viewing, and communicating orally and in writing. Emphasis on integration of the language arts, higher order thinking skills, flexibility in applying the language arts in meaningful contexts across the curriculum.

**Prereq.:** TEMC 3702, BCOE upper-division status, and approval of chairperson.

**Coreq.:** TEMC 4801 and one of TEMC 3703, TEMC 3704, or TEMC 3705.

**TEMC 3707 Science/Technology/Society 3 s.h.**

In-depth exploration of science/technology/society connections. A subject matter-problem-solving-learning environment triad provides opportunities for study of real-life, personal, and societal science and technology problems. Field experience in which students assess STS problems, devise solutions, apply and evaluate knowledge for community improvement.

**Prereq.:** BCOE upper-division status, 12 s.h. science.

**TEMC 4801 The Middle School Learning Community 3 s.h.**

History, philosophy, and concepts of middle level education, including interdisciplinary instruction, collaborative teams, cooperative learning, classroom management, teacher-based advisory programs, flexible scheduling, cross-age grouping, departmentalized/core curriculum, adapting curriculum to the needs of culturally diverse populations, and working with families, resource persons, and community groups.

**Prereq.:** TEMC 3702, BCOE upper-division status, and approval of chairperson.

**Coreq.:** Two of TEMC 3703, TEMC 3704, TEMC 3705, or TEMC 3706.

**TEMC 4802 Student Teaching: Middle Childhood 5-10 s.h.**

Demonstration of ability to integrate knowledge of early adolescents, learning theory, best-practice and content information in diverse teaching/learning settings. Full-time 16 week student teaching in grades 4-9 supervised by University faculty and experienced middle-level practitioners. CR/NC.

**Prereq.:** BCOE Upper Division status, passing scores on PRAXIS II content and PLT tests, criminal background check, and completion of middle childhood program excluding student teaching and student teaching seminar.

**Coreq.:** TEMC 4803.

**Concurrent with:** TEMC 4803.

**Gen Ed:** Capstone.

**TEMC 4803 Student Teaching Seminar for Middle Childhood Education 1-2 s.h.**

Seminar topics are based on pedagogy, knowledge, and application of professional practice and standards, critical theory, and knowledge of the children/adolescent learners. Completion of the Teacher Work Sample is required. CR/NC.

**Coreq.:** Concurrent registration in student teaching: two of TEMC 4802C, TEMC 4802E, TEMC 4802M, or TEMC 4802S.

**TEMC 4804 Middle Level Instructional Design and Student Outcomes 3 s.h.**

Presents teacher candidates with skills in predicting, understanding, and controlling the fundamental principles of learning. Classroom assessment, test administration, construction, scaling, norming, reliability, validity, and interpretation of individual and group tests will be covered. Attention will be paid to how these impact instruction and assessment in middle grades. To be taken concurrently with TEMC 4801.

**Prereq.:** TEMC 3702, BCOE upper division status, approval of chair.

**TEMC 6938 Early Adolescent Characteristics and Educational Program Needs 3 s.h.**

Application of research and theories about the physical, cognitive, emotional, moral, and social development of ten- to 15-year-olds to middle grade instructional decisions. Students will reflect upon and analyze policy and program implications based on developmental principles and investigate effective collaboration with family and others involved with the age group. Includes field inquiry.

**TEMC 6939 Organizational Components of Middle Level Schools 3 s.h.**

Reflection on theory and research information concerning the historic, philosophical, and organizational components of middle-level schools, including program assessment and evaluation of learning environments for appropriateness to early adolescent learners.

**Prereq.:** TEMC 6938.

**TEMC 6940 Inquiry into Current Issues in Middle-Level Education 1-3 s.h.**

Application of previously acquired knowledge, critical thinking, inquiry techniques, including Internet searches, and collaborative synthesis strategies to significant middle-level education problems. Cohort inquiry team participants will present a multimedia reform proposal. May be repeated.

**Prereq.:** TEMC 6938 and TEMC 6939.

**TEMC 6941 Pedagogy Appropriate for Early Adolescent Learners 3 s.h.**

A course linking the learning needs of early adolescents with a variety of curricular and instructional approaches and assessments. Students will reflect on pedagogical theories and research on ways to integrate middle-level curriculum and promote learning construction by students, participate in professional collaboration, investigate alternative assessment techniques, and design an action research project to apply their understanding.

**Prereq.:** TEMC 6940.

**TEMC 6942 Action Research: Pedagogy Appropriate for Early Adolescent Learners 3 s.h.**

A culminating middle-grade-level classroom teacher research project implementing the design of the study organized in TEMC 6941. Students will review authentic assessment literature, collect and analyze evaluation data collaboratively with students, interpret results, and propose improvements.

**Prereq.:** TEMC 6941.

**TEMC 6943 Field Experience: Service Learning and School-Community Collaboration 3 s.h.**

Field experience study of middle-grade-level school-community collaboration and opportunities for service learning to promote healthy development of early adolescents. Participants design, administer, and analyze an interview survey and propose a collaborative model for interaction.

**TEMC 6950 Pedagogical Content Knowledge in Mathematics for Middle School Teachers 1 3 s.h.**

Integrates mathematics content, mathematics pedagogy, and results from mathematics education research through direct instruction and inquiry-based experiences with manipulative materials and technology. Develops conceptual foundations through topics of number, number sense, and measurement; operations, functions, patterns, and algebra; and mathematical processes. Field experience in a middle grades learning environment is required.

**Prereq.:** Middle Childhood Licensure in area(s) other than mathematics.

**TEMC 6951 Pedagogical Content Knowledge in Mathematics for Middle School Teachers 2 3 s.h.**

Integrates mathematics content, mathematics pedagogy, and results from mathematics education research through direct instruction and inquiry-based experiences with manipulative materials and technology. Develops conceptual foundations through topics of geometry, measurement, and spatial sense; data analysis and probability; and mathematical processes.

**Prereq.:** Middle Childhood Licensure in area(s) other than mathematics, TEMC 6950.

**TEMC 6952 Science for Middle School Teachers 1 3 s.h.**

Using NSES/NSTA/NCATE and Ohio Standards as the framework, candidates engage in a purposefully integrated in-depth exploration of science content and pedagogy appropriate for middle grades teachers. Topics include content, inquiry, general skills of teaching, curriculum, assessment, safety and welfare, and professional growth. Experiences that integrate science content with processes and problem-solving skills for achieving life-long learning and science literacy will be emphasized. Portions of the course may be offered on-site, on-line, or as a combination of both. Field experience in a middle grades learning environment is required.

**Prereq.:** Admission to the School of Graduate Studies and Research and Middle Childhood Licensure area(s) other than science.

**TEMC 6953 Science for Middle School Teachers 2 3 s.h.**

Using NSES/NSTA/NCATE and Ohio Standards as the framework, candidates engage in a purposefully integrated in-depth exploration of science content and pedagogy appropriate for middle grades teachers. Topics include content, nature of science, issues, science in the community, and professional growth. Experiences that integrate science content with processes and problem-solving skills for achieving life-long learning and scientific literacy will be emphasized. Portions of the course may be offered on-site, on-line, or as a combination of both. Field experience in a middle grades learning environment is required.

**Prereq.:** Admission to the School of Graduate Studies and Research and Middle Childhood Licensure in area(s) other than science.

**TEMC 6954 Middle School: Theory, Research, and Practices 3 s.h.**

Major concepts, research, and theories about the physical, cognitive, emotional, moral, and social development of students in grades 4-9. Research historical, philosophical, and organizational components of middle grades schools, including program assessment and evaluation of learning environments. Emphasis will be placed on research and position statements from National Middle School Association. Students will design an action research project to apply their understanding.

**Prereq.:** Admission to School of Graduate Studies and Research.

**TEMC 6955 Field Experience: Middle Years School/Community Collaboration 3 s.h.**

Field experience study of middle grades level school/community collaboration and opportunities for service learning to promote healthy development of early adolescents. Additional research into current issues and challenges facing middle schools today. Participants design, administer, and analyze an interview and survey instrument and propose a collaborative service learning model.

**Prereq.:** Admission to School of Graduate Studies and Research.

## Teacher Education Reading

**TERG 2601 Reading Application in Content Area Early Years 3 s.h.**

Study of the Ohio Academic Content Area Standards, comprehension skills, word attack skills, pre-reading strategies, and writing development as they relate to early years reading in the content area. The role of early childhood language development and literature in the early childhood content-area classroom. 30 hours of field experience required.

**Prereq.:** 20 s.h. completed.

**TERG 2610 Reading Application in Content Areas Middle Years 3 s.h.**

Study of the Ohio Academic Content Area Standards, comprehension skills, word attack skills, pre-reading strategies, and writing development as they relate to middle years, multi-age and special education reading in the content area. The role of literature in the content-area classroom. 30 hours of field experience required. h. completed.

**Prereq.:** 20 s.

**TERG 3701 Phonics in Reading Instruction 3 s.h.**

Phonics subject matter, instructional strategies and applications, and planning for intensive, phonic-based word analysis in the early and middle stages of literary acquisition. 30 hours of Field Experience required.

**Prereq.:** TERG 2601 or TERG 2610.

**TERG 3702 Developmental Reading Instruction 3 s.h.**

Theories and related models of reading, various approaches to teaching reading, and creative integrative literature strategies to meet the needs of diverse learners. 30 hours of Field Experience required.

**Prereq.:** TERG 2601 or TERG 2610 and TERG 3701.

**TERG 3703 Assessment and Instruction in Reading 3 s.h.**

Application and interpretation of selected formal and informal assessment tools. Strategies for ensuring diverse students' reading and the related language arts with ongoing assessment. 30 Hours of Field Experience required.

**Prereq.:** TERG 2601 or TERG 2610 and TERG 3701 and TERG 3702.

**TERG 3704 Assessment and Instruction in Reading Internship 1 s.h.**

Required of students seeking licensure in Reading and Language Arts. Practicum experience involving assessment of reading needs of the middle school student, planning and carrying out a program of remedial assistance, reporting results.

**Prereq.:** TERG 3701 and TERG 3702.

**Concurrent with:** TERG 3703.

**TERG 3705 Advanced Literature Strategies 3 s.h.**

Advanced reading and language arts, holistic teaching strategies with emphasis on non-textbook approaches. Field experience.

**Prereq.:** TERG 3703.

**TERG 3706 Reading Practicum 3 s.h.**

Supervised experiences in reading assessment and instruction in the elementary, middle, or secondary school setting. Six hours per week in a designated school, two hour seminar.

**Prereq.:** TERG 3705.

**TERG 3710 Reading Application in Content Areas, Middle Years 3 s.h.**

Study of the Ohio Academic Content Area Standards, comprehension skills, word attack skills, pre-reading strategies, and writing development as they relate to middle years, multi-age and special education reading in the content area. The role of literature in the content-area classroom. Requires 30 hours of field experience in addition to course responsibilities.

**Prereq.:** completion of 50 hours.

**TERG 3711 Reading Application in Content Areas, Secondary Years 3 s.h.**

Study of the Ohio Academic Content Area Standards, comprehension skills, word attack skills, pre-reading strategies, and writing development as they relate to secondary and career/technical reading in the content area. The role of literature in the content-area classroom. 30 Field Hours is required.

**Prereq.:** 50 s.h. completed and concurrent with SED 3706.

**TERG 6917 Literacy, Reading, and Language Arts Programs 3 s.h.**

A critical appraisal of literacy, reading, and language arts programs in schools and an analysis of contemporary methodological issues.

**TERG 6922 Organizing and Managing Diverse Literacy Environments 3 s.h.**

Creating a literate environment that fosters student interest in reading and writing by integrating foundational knowledge, use of research-based instructional practices, curriculum materials, and assessment-based decision making to form instructional groups. Emphasis on student interests, reading abilities, and cultural and linguistic backgrounds as foundations for a reading and writing program that incorporates a large supply of books, technology-based information, and non-print materials.

**TERG 6923 Literacy and Phonics Instruction: Early Years 3 s.h.**

An investigation and research of the philosophy, principles, and practices of reading (including phonemic and phonetic developments) and language arts of the child, birth through age 8. Examination and application of formal and informal assessment procedures in the context of reading and language arts instruction. Language learning needs of diverse populations will be addressed.

**TERG 6924 Content Literacy Young Adolescent to Adult 3 s.h.**

Investigation of research-based philosophies, principles, and best practices for reading to learn and using the language arts in comprehending and meaning-making; using reading and the language arts as tools in learning communication.

**TERG 6926 Reading and Language Arts Assessment 1 3 s.h.**

An examination and application of formal and informal assessment procedures in the context of reading and language arts instruction. Emphasis will be placed on the use of background information and discrete data. Strategies providing for effective appraisal procedures and developmentally appropriate activities will be included.

**Prereq.:** TERG 6917.

**TERG 6927 Practicum: Coaching for Effective Literacy Instruction 3 s.h.**

The role of the literacy coach as an instructional leader in assessment-based decision making, research-based instruction, and delivery of high-quality professional development. Emphasis placed on techniques for working with individual teachers in a coaching context and groups of teachers in whole group PD settings.

**TERG 6928 Practicum: Case Study in Reading and Language Arts 3 s.h.**

Application of previous course content involves supervised formal and informal assessment of school-age pupils, developing an individualized reading plan, selecting appropriate strategies and materials for teaching, writing, tutoring log entries, developing a student portfolio, evaluating results of instruction, and writing a case study report.

**Prereq.:** TERG 6926.

**TERG 6929 The Reading and Language Arts Professional 3 s.h.**

Investigation of theories and performance-based procedures for creating, analyzing, guiding, and changing school- and system-wide reading and language arts programs.

**Prereq.:** TERG 6926.

**TERG 6970 Coaching in Diverse Classrooms 2 s.h.**

The focus of this course is on the preparation of literacy specialists to coach teachers in the implementation of culturally responsive instruction for diverse learners. This population includes special needs, culturally and linguistically diverse students. Emphasis will be placed on connections between current theory, research, and instructional practice.

**TERG 6971 Pedagogy of Effective Literacy Instruction 2 s.h.**

Candidates demonstrate knowledge of a wide range of instructional practices, methods, and curriculum materials, including technology, that support effective reading and writing instruction. Candidates integrate their knowledge and dispositions regarding curriculum, instructional practices, curricular materials, assessment, and evaluation to create literate environments that foster both reading and writing in all students.

**Prereq.:** TERG 6970.

**TERG 6972 Coaching for Effective Assessment Practice 2 s.h.**

Designed for reading specialists, this course teaches knowledge, skills, and dispositions in school-based professional development and coaching on K-12 reading assessment concepts and skills.

**Prereq.:** TERG 6971.

**TERG 6973 Professional Development in Literacy 2 s.h.**

An introduction to research and knowledge bases related to teacher professional development from a variety of perspectives. Examines coaching as one venue of supporting teacher professional development.

**Prereq.:** TERG 6972.

**TERG 6974 Advanced Action Research in Literacy 2 s.h.**

Intro to literacy research as an integral part of professional development. Builds candidate understanding of a variety of literacy research paradigms, supports engagement in inquiry to significantly advance candidates' understanding of literacy, and provides opportunities for candidates to collaborate with other literacy professionals to advance understanding of evidence-based practice.

**Prereq.:** TERG 6973.

**TERG 6975 Internship 1 4 s.h.**

Culminating activity supporting and integrating accomplishment of the Literacy Specialist Endorsement Standards I-VII. School-based practicum providing group and individual professional development to colleagues for continuous improvement of literacy curriculum, instruction, and assessment. Diagnostic reading and writing clinical experiences focus on data-based decision making to inform professional development provided in both group and individual settings (coaching).

**Prereq.:** TERG 6971.

**TERG 6976 Internship 2 4 s.h.**

Continuation of the culminating activity supporting and integrating accomplishment of the Literacy Specialist Endorsement Standards I-VII. School-based practicum providing group and individual professional development to colleagues for continuous improvement of literacy curriculum, instruction, and assessment. Diagnostic reading and writing clinical experiences focus on data-based decision making to inform professional development provided in both group and individual settings (coaching).

**Prereq.:** TERG 6975.

## Teacher Education, Department of

**TCED 1500 Introduction to Becoming a Teacher First Year Experience Course BCOE 3 s.h.**

This course will focus on practical and academic preparation to enter the teaching profession, social and emotional wellness and academic support. Students will have an opportunity to explore the teaching profession. This course will examine various facets of preparing to teach in a diverse, 21st century classroom. The First Year Experience course will also teach first year students how to make informed decisions and successfully function in the university setting.

**TCED 1501 Preparation for Praxis Core Mathematics 1 s.h.**

A course designed to prepare students for professional-level standardized tests. Students will critically analyze the basic components of the Mathematics test for which they are preparing, including requirements, test formats, guideline for answering and scoring, and test-taking strategies, in conjunction with effective pedagogical procedures. One hour lecture, one hour lab.

**TCED 1502 Preparation for Praxis Core Writing 1 s.h.**

A course designed to prepare students for professional-level standardized tests. Students will critically analyze the basic components of the writing test for which they are preparing, including requirements, test formats, guideline for answering and scoring, and test-taking strategies, in conjunction with effective pedagogical procedures. One hour lecture, one hour lab.

**TCED 1503 Preparation for Praxis Core Reading 1 s.h.**

A course designed to prepare students for professional-level standardized tests. Students will critically analyze the basic components of the reading test for which they are preparing, including requirements, test formats, guideline for answering and scoring, and test-taking strategies, in conjunction with effective pedagogical procedures. One hour lecture, one hour lab. 1 s. h.

**TCED 1509 Orientation to On-Line Learning 1 s.h.**

This course provides an introduction and orientation to on-line learning, while acquainting students with the platform of BB9, distance education technologies, YSU and BCOE. CR/NC.

**Coreq.:** DE ECE 2629.

**TCED 2650 LGBTQ Issues in History and Popular Culture 3 s.h.**

Explores the historical and present day representation of LGBT issues and individuals and their portrayal in popular culture.

**Cross-listed:** WMST 2650.

**TCED 4830 Undergraduate Capstone Course for Education Majors 3 s.h.**

Senior Seminar which substitutes for student teaching. This course requires a career/field component and research project. Placement is negotiated by the student with approval from course instructor.

**Prereq.:** Education major and junior standing.

**TCED 5888 Topical Seminar 1-3 s.h.**

Examination of issues related to the teaching of early childhood education, middle childhood education, special education, multi-age education, family and consumer vocational education, or adolescent/young adult education not covered in depth of other courses.

**Prereq.:** Admission to upper-division status in COE or admission to the School of Graduate Studies.

**TCED 5888J Topical Seminar Introduction to African American Education 1-3 s.h.**

Examination of issues related to the teaching of early childhood education, middle childhood education, special education, multi-age education, family and consumer vocational education, or adolescent/young adult education not covered in depth of other courses.

**Prereq.:** Admission to upper-division status in COE or admission to the School of Graduate Studies.

## Learning Outcomes

The learning outcomes for the Department of Teacher Education are to prepare 21st century classroom-ready teacher-candidates with the knowledge, skills, and dispositions to:

- Know and understand the content for which they have instructional responsibility
- Plan and deliver instruction that impacts the learning of all PK-12 students
- Use varied assessments to inform instruction
- Establish and maintain learning environments that ensure learning for all PK-12 students
- Collaborate and communicate with all stakeholders
- Accept the responsibility for professional growth, performance, and involvement as an individual and as a member or a learning community
- Expect that all teacher candidates will learn while modeling respect for PK-12 students' diverse cultures

## Bachelor of Science in Education in Integrated Language Arts (7-12) - Adolescent License

Dr. Katie Cripe, Program Coordinator

### OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education offers a four-year AYA Education Program (grades 7-12), Integrated Language Arts, approved by the Ohio Department of Education. The Integrated Language Arts license, Bachelor of Science in Education Degree requires a minimum of 127 semester hours of coursework including a semester of student teaching. Please refer to the four-year plan for additional information. This teaching license requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

### EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this

major consider adding the Teaching English to Speakers of Other Languages (TESOL) endorsement to increase marketability. Graduates wanting to teach College Credit Plus courses should consider a Master of Science in Education Content Area Concentration degree.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

## FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 120 hours of pre-clinical experiences in ad Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years

Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- EDFN 3710 Educational Assessment
- SED 3706 Principles of Teaching Adolescents

And

- SED 4800C Science Methods for Adolescent and Young Adult Learners

Or

- SED 4800E English Methods for Adolescent and Young Adult Learners

Or

- SED 4800M Mathematics Methods for Adolescent and Young Adult Learners

Or

- SED 4800S Social Studies Methods for Adolescent and Young Adult Learners

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

## ADVISEMENT

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

## REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

003 Assessment of Professional Knowledge Adolescence to Young Adult (7-12) (All AYA Teacher Candidates)

020 English Language Arts (for teacher candidates with ELA concentration)

027 Mathematics (for teacher candidates with Math concentration)

024 Integrated Science (for teacher candidates with Science concentration)

025 Integrated Social Studies (for teacher candidates with Social Studies concentration)

## ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		12
Core Competencies		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Select one of the following two Math courses or any higher Math course. Math 2652 is preferred math course if you are required to take the Math Praxis Core.		
MATH 2623	Quantitative Reasoning	
Or:		
MATH 2652	Mathematics for Early Childhood Teachers 2	
General Education Knowledge Domains		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Courses listed for GER's below are required in this program.		
Arts and Humanities		6
These 6 s.h. of AH requirements, are met with courses in the major		
Natural Sciences (2 courses, 1 lab)		7
Social Science		6
PSYC 1560	General Psychology	
ENGL 2651	Introduction to Language	
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
Subject Area Curriculum		
JOUR 2622	News Reporting 1	3
ENGL 2631	Mythology in Literature (AH)	3
ENGL 3700	Literary Study	3

ENGL 3705	Young Adult Literature	3	EDFN 1501	Introduction to Education	3
ENGL 3710	British Literature 1	3	SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
ENGL 3711	British Literature 2	3	TERG 3711	Reading Application in Content Areas, Secondary Years <sup>1,2</sup>	3
ENGL 3712	American Literature 1	3	EDFN 3708	Education and Society	3
ENGL 3713	American Literature 2	3	SED 3706	Principles of Teaching Adolescents <sup>2</sup>	3
ENGL 3741	Advanced Writing for Teachers <sup>1,2</sup>	3	Preclinical Curriculum		
ENGL 4881	Shakespeare and His World	3	SED 4800E	English Methods for Adolescent and Young Adult Learners <sup>2</sup>	3
JOUR 4821	Advising Student Media	3	EDFN 3710	Educational Assessment	3
Select one of the following American Literature courses:		3	Student Teaching Curriculum		
ENGL 3770	American Literature in Historical Perspective		SED 4842	Supervised Student Teaching: High School <sup>2</sup>	10
ENGL 3780	American Genres		SED 4842A	Student Teaching Seminar for Secondary Education <sup>2</sup>	2
ENGL 4862	Themes in American Literature		Total Semester Hours for the Degree: 127 s.h.		
ENGL 4864	American Literary Conversations		<sup>1</sup> Prerequisites for Preclinical Curriculum <sup>2</sup> Upper Division course		
ENGL 4871	The Black Experience in American Literature		BCOE Notes:		
Select one of the following World/Multicultural Literature courses:		3	<b>Advisement:</b>		
ENGL 2610	World Literature (AH/SPA)		<ul style="list-style-type: none"> <li>• It is highly recommended that all teacher candidates meet with an academic advisor every semester.</li> <li>• Freshmen, athletes, and students on warning and probation are required to meet with an advisor before registration.</li> <li>• At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.</li> </ul>		
ENGL 2617	Women in Literature (AH/SPA)		<b>Important Notes:</b>		
ENGL 2618	American Literature and Diversity (AH/SPA)		<ul style="list-style-type: none"> <li>• Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.</li> <li>• <b>Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.</b></li> <li>• Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.</li> <li>• Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements: <ul style="list-style-type: none"> <li>___ Minimum completion of 50 SH</li> <li>___ Minimum 2.75 overall GPA</li> <li>• Meet one of the following criteria: <ul style="list-style-type: none"> <li>___ Overall GPA 3.4 or better, <b>OR</b></li> <li>___ ACT scores of Reading-21, English-18, Math-22, <b>AND/OR</b></li> <li>___ SAT scores of Reading-450, Writing-430, Math-520, <b>AND/OR</b></li> <li>___ Praxis CORE scores, Reading-156, Writing-162, Math-150</li> </ul> </li> </ul> </li> </ul>		
ENGL 2620	African Literature		(Attach a copy of your CORE scores to the application)		
ENGL 3732	Images of Women		<ul style="list-style-type: none"> <li>• "B" average or better (A-C, B-B) for: <ul style="list-style-type: none"> <li>___ ENGL 1550 ___ ENGL 1551</li> </ul> </li> </ul>		
ENGL 3738	Selected Topics in World Literature				
ENGL 3790	Selected Topics in Multicultural Studies				
Select one of the following Language/Linguistics courses:		3			
ENGL 3750	Language and Culture				
ENGL 3757	Development of the English Language				
ENGL 4850	Sociolinguistics				
ENGL 4851	Language Acquisition				
ENGL 4855	Advanced Linguistics				
ENGL 4856	TESOL Methods				
ENGL 4858	English Grammar				
Select one of the following Media Literacy courses:		3			
TCOM 1595	Survey of American Mass Communications				
THTR 1590	History of Motion Pictures (AH)				
ENGL 2665	Introduction to Film Study (AH)				
ENGL 3743	Professional and Technical Writing				
Select one of the following Upper Division British Literature courses:		3			
ENGL 4830	Major Figures in British Literature				
ENGL 4831	British Genres, Circles, and Movements				
ENGL 4860	The Medieval World				
ENGL 4882	The English Renaissance				
ENGL 4886	Restoration and Eighteenth Century British Literature				
ENGL 4887	The Romantic Period				
ENGL 4892	Nineteenth Century British Literature Studies				
ENGL 4895	Early Twentieth Century British Studies				
ENGL 4896	British Literature from World War II to the Present				
Select one of the following Advanced English Studies courses:		3			
ENGL 3706	Introduction to Literary Theory				
ENGL 4890	Senior Seminar				
Additional Upper Division American					
Additional Upper Division British					
Select two of the following Oral Communication courses:		6			
CMST 2655	Communication in Groups and Organizations				
CMST 2656	Interpersonal Communication				
THTR 2670	Oral Interpretation				
Professional Education Curriculum					
PSYC 3709	Psychology of Education	3			

If failure to meet “B” average above must also complete:

\_\_\_\_ ENGL 2601 grade of “B” or better. **If you receive a “C” or below you will need to retake the course.**

- “B” average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ ENGL 3700

If student does not have a “B” average, student will be required to **retake one or more of these courses until the “B” average is achieved.**

- A grade of “C” or better is required in all required major courses. Courses taken as “CR/NC” will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

**Upper-Division Application Process**

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the “+” symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

**Program Notes:**

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

**Preclinical Application with Request for Graduation Evaluation**

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical

- Preclinical candidates are screened for eligibility based on GPA and course completion.

**Student Teaching:**

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

**Graduation Process:**

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

**Completing a Bachelor of Science in Education without Licensure:**

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
PSYC 1560	General Psychology	3
ENGL 2631	Mythology in Literature	3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
EDFN 1501	Introduction to Education	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 2623	Quantitative Reasoning	3
SPED 2630	Individuals with Exceptionalities in Society	3
Natural Science/Lab GER		4
ENGL World Multiculture Literature Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
ENGL 2651	Introduction to Language (satisfies an SPA elective requirement)	3
CMST 1545	Communication Foundations	3
ENGL 3705	Young Adult Literature	3
ENGL 3700	Literary Study	3
Media Literacy Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ENGL 3710	British Literature 1	3
ENGL 3712	American Literature 1	3
JOUR 2622	News Reporting 1	3

PSYC 3709	Psychology of Education	3
Social and Personal Awareness GER		3
Oral Communications Elective		3
<b>Semester Hours</b>		<b>18</b>

**Year 3**

<b>Fall</b>		
ENGL 3711	British Literature 2	3
ENGL 3713	American Literature 2	3
Social and Personal Awareness GER		3
Upper Division British Literature Elective		3
Language /Linguistics Elective		3
Oral Communication Elective		3
<b>Semester Hours</b>		<b>18</b>

**Spring**

SED 3706	Principles of Teaching Adolescents	3
EDFN 3708	Education and Society	3
ENGL 3741	Advanced Writing for Teachers	3
JOUR 4821	Advising Student Media	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
Natural Science GER		3
<b>Semester Hours</b>		<b>18</b>

**Year 4**

<b>Fall</b>		
SED 4800E	English Methods for Adolescent and Young Adult Learners <sup>3</sup>	3
EDFN 3710	Educational Assessment	3
ENGL 4881	Shakespeare and His World	3
American Literature Elective		3
Advanced English Studies Elective		3
<b>Semester Hours</b>		<b>15</b>

**Spring**

SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>127</b>

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.

- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

## Bachelor of Science in Education in Integrated Mathematics (7-12) - Adolescent License

Dr. Katie Cripe, Program Coordinator

### OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education offers a four-year AYA Education Program (grades 7-12), Integrated Mathematics, approved by the Ohio Department of Education. The Integrated Mathematics license, Bachelor of Science in Education Degree requires a minimum of 121 semester hours of coursework including a semester of student teaching. Please refer to the four-year plan for additional information. This teaching license requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

### EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Teaching English to Speakers of Other Languages (TESOL) endorsement to increase marketability. Graduates wanting to teach College Credit Plus courses should consider a Master of Science in Education Content Area Concentration degree.

#### Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

### FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 120 hours of pre-clinical experiences in ad Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

#### Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years

#### Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. Applications for the preclinical experience



must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- EDFN 3710 Educational Assessment
- SED 3706 Principles of Teaching Adolescents

And

- SED 4800C Science Methods for Adolescent and Young Adult Learners

Or

- SED 4800E English Methods for Adolescent and Young Adult Learners

Or

- SED 4800M Mathematics Methods for Adolescent and Young Adult Learners

Or

- SED 4800S Social Studies Methods for Adolescent and Young Adult Learners

**Student Teaching**

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

**ADVISEMENT**

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

**REQUIRED ASSESSMENTS**

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

003 Assessment of Professional Knowledge Adolescence to Young Adult (7-12) (All AYA Teacher Candidates)

020 English Language Arts (for teacher candidates with ELA concentration)

027 Mathematics (for teacher candidates with Math concentration)

024 Integrated Science (for teacher candidates with Science concentration)

025 Integrated Social Studies (for teacher candidates with Social Studies concentration)

**ENDORSEMENTS**

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
<b>Core Competencies</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3

CMST 1545	Communication Foundations	3
<b>Mathematics Requirement</b>		
MATH 1571	Calculus 1	4
<b>General Education Knowledge Domains</b>		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.		
<b>Arts and Humanities</b>		6
<b>Natural Sciences (2 courses, 1 lab)</b>		7
<b>Social Science</b>		6
PSYC 1560	General Psychology	
<b>Social Science GER</b>		
<b>Social and Personal Awareness</b>		6
<b>General Education Elective / First-Year Experience</b>		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
<b>Subject Area Curriculum</b>		
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3715	Discrete Mathematics	3
MATH 3720	Linear Algebra and Matrix Theory	3
MATH 3721	Abstract Algebra 1	4
STAT 3743	Probability and Statistics	4
MATH 3750	History of Mathematics	3
MATH 3751	Real Analysis 1	4
MATH 4830	Foundations of Geometry	3
MATH 4896	Senior Undergraduate Research Project	2
MATH 4832	Euclidean Transformations	3
CSIS 2610	Programming and Problem-Solving	4
Select one of the following MATH electives:		
MATH 3705	Differential Equations	3
MATH 4822	Abstract Algebra 2	3
MATH 5828	Number Theory	3
MATH 5835	Introduction to Combinatorics and Graph Theory	3
MATH 5845	Operations Research	3
MATH 5895	Selected Topics in Mathematics	3
<b>Professional Education Curriculum</b>		
PSYC 3709	Psychology of Education	3
EDFN 1501	Introduction to Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
SED 3706	Principles of Teaching Adolescents <sup>2</sup>	3
TERG 3711	Reading Application in Content Areas, Secondary Years <sup>2</sup>	3
EDFN 3708	Education and Society	3
<b>Preclinical Curriculum</b>		
SED 4800M	Mathematics Methods for Adolescent and Young Adult Learners <sup>2</sup>	3
EDFN 3710	Educational Assessment	3
<b>Student Teaching Curriculum</b>		
SED 4842	Supervised Student Teaching: High School <sup>2</sup>	10
SED 4842A	Student Teaching Seminar for Secondary Education <sup>2</sup>	2
Total Semester Hours for the Degree: 121 s.h.		

<sup>1</sup> Prerequisites for Preclinical Curriculum

<sup>2</sup> Upper division course

BCOE Notes:

**Advisement:**

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are **required** to meet with an advisor before registration.
- **At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below** will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

**Important Notes:**

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_\_ ENGL 2601 grade of "B" or better. **If you receive a "C" or below you will need to retake the course.**

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ MATH 3715

If student does not have a "B" average, student will be required to **retake one or more of these courses until the "B" average is achieved.**

- A grade of "C" or better is required in all required major courses. Courses taken as "CR/NC" will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

**Upper-Division Application Process**

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the "+" symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

**Program Notes:**

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CFAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

**Preclinical Application with Request for Graduation Evaluation**

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

**Student Teaching:**

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a "C" (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

**Graduation Process:**

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

#### Completing a Bachelor of Science in Education without Licensure:

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 1571	Calculus 1	4
PSYC 1560	General Psychology	3
EDFN 1501	Introduction to Education	3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
SPED 2630	Individuals with Exceptionalities in Society	3
Arts and Humanities GER		3
Social and Personal Awareness GER		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
MATH 2673	Calculus 3	4
MATH 3715	Discrete Mathematics	3
CMST 1545	Communication Foundations	3
Social Science GER		3
<b>Semester Hours</b>		<b>13</b>
<b>Spring</b>		
MATH 3720	Linear Algebra and Matrix Theory	3
MATH 4830	Foundations of Geometry	3
STAT 3743	Probability and Statistics	4
CSIS 2610	Programming and Problem-Solving	4
PSYC 3709	Psychology of Education	3
<b>Semester Hours</b>		<b>17</b>
<b>Year 3</b>		
<b>Fall</b>		
MATH 3750	History of Mathematics	3
MATH 3721	Abstract Algebra 1	4
Arts and Humanities GER		3
Natural Sciences GER		3
MATH Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
EDFN 3708	Education and Society	3
SED 3706	Principles of Teaching Adolescents	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
Natural Science/Lab GER		4
Social and Personal Awareness GER		3
<b>Semester Hours</b>		<b>16</b>

#### Year 4

##### Fall

EDFN 3710	Educational Assessment	3
MATH 4896	Senior Undergraduate Research Project	2
SED 4800M	Mathematics Methods for Adolescent and Young Adult Learners	3
MATH 3751	Real Analysis 1	4
MATH 4832	Euclidean Transformations	3
<b>Semester Hours</b>		<b>15</b>

##### Spring

SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>121</b>

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

## Bachelor of Science in Education in Integrated Sciences (7-12) - Adolescent License, Biology Concentration

Dr. Katie Cripe, Program Coordinator

### OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education offers a four-year AYA Education Program (grades 7-12), Integrated Sciences/Biology Concentration, approved by the Ohio Department of Education. The AYA Integrated Sciences License, Grades 7-12 (Biology) as the primary concentration), Bachelor of Science in Education degree requires a minimum of 148-151 semester hours of course work. The Integrated Science license qualifies the license holder to teach all areas of science (Biology, Chemistry, Earth/Space, and Physics). This teaching field

also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

## EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Teaching English to Speakers of Other Languages (TESOL) endorsement to increase marketability. Graduates wanting to teach College Credit Plus courses should consider a Master of Science in Education Content Area Concentration degree.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

## FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 120 hours of pre-clinical experiences in ad Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years

Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- EDFN 3710 Educational Assessment
- SED 3706 Principles of Teaching Adolescents

And

- SED 4800C Science Methods for Adolescent and Young Adult Learners

Or

- SED 4800E English Methods for Adolescent and Young Adult Learners

Or

- SED 4800M Mathematics Methods for Adolescent and Young Adult Learners

Or

- SED 4800S Social Studies Methods for Adolescent and Young Adult Learners

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

## ADVISEMENT

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

## REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

003 Assessment of Professional Knowledge Adolescence to Young Adult (7-12) (All AYA Teacher Candidates)

020 English Language Arts (for teacher candidates with ELA concentration)

027 Mathematics (for teacher candidates with Math concentration)

024 Integrated Science (for teacher candidates with Science concentration)

025 Integrated Social Studies (for teacher candidates with Social Studies concentration)

## ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 1571	Calculus 1	
General Education Knowledge Domains		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.		
Arts and Humanities		6
Natural Sciences (2 courses, 1 lab)		7
This requirement met by courses in major		
Social Science		6
Social Science GER		
PSYC 1560	General Psychology	
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
Subject Area Curriculum		
MATH 1572	Calculus 2	4
Biology Concentration		

Both of the following:

BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
Select 14 s.h. from the following BIOL electives:		14
BIOL 3741 & 3741L	Animal Diversity and Animal Diversity Laboratory	
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	
BIOL 3721	Genetics	
BIOL 3762 & 3762L	Field Botany and Field Botany Laboratory	
BIOL 3759	Evolution	
BIOL 4890 & 4890L	Molecular Genetics and Molecular Genetics Laboratory	
BIOL 3730 & 3730L	Human Physiology and Human Physiology Laboratory	

If primary science concentration is Biology, then take the following:

CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
PHYS 2608	Sound	3
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2602	Introduction to Oceanography	3
GEOG 2630	Weather	3
ASTR 1504	Descriptive Astronomy	3

Select one of the following CHEM electives:

CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM 3785	Biochemistry 1	3

Select a minimum of 3 s.h. from the following PHYS electives:

PHYS 3703	Classical Mechanics and Dynamics	4
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
PHYS 3705L	Thermodynamics and Classical Statistical Mechanics Laboratory	1
PHYS 3704	Modern Physics	4
PHYS 3704L	Modern Physics Laboratory	1
PHYS 3722	Advanced Optics and Light	3
PHYS 3722L	Advanced Optics Laboratory	1
PHYS 4805	Undergraduate Physics Research	3
PHYS 2607	Physical Science for Middle and Secondary Education	4

Select one of the following E/SS electives:

ENST 2600	Foundations of Environmental Studies	3
GEOL 2615	Geology and the Environment 1	3
GEOG 3703	Human Impacts on the Environment	3
GEOG 3730	Global Climates	3
GEOL 3720	Field Investigations in Geology	1-4

Professional Education Curriculum

PSYC 3709	Psychology of Education	3
EDFN 1501	Introduction to Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
EDFN 3708	Education and Society	3
SED 3706	Principles of Teaching Adolescents <sup>2</sup>	3

Preclinical Curriculum

EDFN 3710	Educational Assessment	3
SED 4800C	Science Methods for Adolescent and Young Adult Learners <sup>2</sup>	3

Student Teaching Curriculum

SED 4842	Supervised Student Teaching: High School <sup>2</sup>	10
SED 4842A	Student Teaching Seminar for Secondary Education <sup>2</sup>	2

Minimum Total Hours Required for the Degree: 148-151 s.h.

<sup>1</sup> Prerequisites for preclinical curriculum.

<sup>2</sup> Upper division course.

BCOE Notes:

**Advisement:**

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are required to meet with an advisor before registration.
- At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

**Important Notes:**

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet “B” average above must also complete:

\_\_\_ ENGL 2601 grade of “B” or better. **If you receive a “C” or below you will need to retake the course.**

- “B” average or better (B-B-B, A-B-C) across the following:

\_\_\_ EDFN 1501 \_\_\_ CMST 1545

\_\_\_ SPED 2630 \_\_\_ GEOL 1505 or BIOL 2602 or CHEM 1516 or PHYS 2610

If student does not have a “B” average, student will be required to **retake one or more of these courses until the “B” average is achieved.**

- A grade of “C” or better is required in all required major courses. Courses taken as “CR/NC” will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

#### Upper-Division Application Process

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the “+” symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

#### Program Notes:

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

#### Preclinical Application with Request for Graduation Evaluation

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:

- **September 1**—for Fall preclinical
- **February 1**—for Spring preclinical

- Preclinical candidates are screened for eligibility based on GPA and course completion.

#### Student Teaching:

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

#### Graduation Process:

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

#### Completing a Bachelor of Science in Education without Licensure:

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 1571	Calculus 1	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
EDFN 1501	Introduction to Education	3
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
PSYC 1560	General Psychology	3
<b>Semester Hours</b>		<b>21</b>
<b>Year 2</b>		
<b>Fall</b>		
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics laboratory 1	1
CMST 1545	Communication Foundations	3

GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
Biology Elective		4
SPED 2630	Individuals with Exceptionalities in Society	3
<b>Semester Hours</b>		<b>19</b>
<b>Spring</b>		
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
ASTR 1504	Descriptive Astronomy	3
PSYC 3709	Psychology of Education	3
Arts and Humanities GER		3
Biology Elective		4
Earth/Space Science Elective		3
<b>Semester Hours</b>		<b>21</b>
<b>Year 3</b>		
<b>Fall</b>		
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
GEOG 2630	Weather	3
GEOL 2602	Introduction to Oceanography	3
Social and Personal Awareness GER		3
Biology Elective		3
Physics Elective		3-4
<b>Semester Hours</b>		<b>19-20</b>
<b>Spring</b>		
SED 3706	Principles of Teaching Adolescents	3
EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
PHYS 2608	Sound	3
TEMC 3707	Science/Technology/Society	3
Social and Personal Awareness GER		3
Social Science GER		3
<b>Semester Hours</b>		<b>21</b>
<b>Year 4</b>		
<b>Fall</b>		
EDFN 3710	Educational Assessment	3
SED 4800C	Science Methods for Adolescent and Young Adult Learners	3
Arts and Humanities GER		3
Chemistry Elective		3-5
Biology Elective		5
<b>Semester Hours</b>		<b>17-19</b>
<b>Spring</b>		
SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>148-151</b>

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content

of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

## Bachelor of Science in Education in Integrated Sciences (7-12) - Adolescent License, Chemistry Concentration

Dr. Katie Cripe, Program Coordinator

### OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education offers a four-year AYA Education Program (grades 7-12), Integrated Sciences/Chemistry Concentration, approved by the Ohio Department of Education. The AYA Integrated Sciences License, Grades 7-12 (Chemistry as the primary concentration), Bachelor of Science in Education degree requires a minimum of 146-149 semester hours of course work. The Integrated Science license qualifies the license holder to teach all areas of science (Biology, Chemistry, Earth/Space, and Physics). This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

### EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Teaching English to Speakers of Other Languages (TESOL) endorsement to increase marketability. Graduates wanting to teach College Credit Plus courses should consider a Master of Science in Education Content Area Concentration degree.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

### FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 120 hours of pre-clinical experiences in ad Field experiences are included in the following courses and offer opportunities to

provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

#### Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years

#### Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- EDFN 3710 Educational Assessment
- SED 3706 Principles of Teaching Adolescents

#### And

- SED 4800C Science Methods for Adolescent and Young Adult Learners

#### Or

- SED 4800E English Methods for Adolescent and Young Adult Learners

#### Or

- SED 4800M Mathematics Methods for Adolescent and Young Adult Learners

#### Or

- SED 4800S Social Studies Methods for Adolescent and Young Adult Learners

#### Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

## ADVISEMENT

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

## REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

003 Assessment of Professional Knowledge Adolescence to Young Adult (7-12) (All AYA Teacher Candidates)

020 English Language Arts (for teacher candidates with ELA concentration)

027 Mathematics (for teacher candidates with Math concentration)

024 Integrated Science (for teacher candidates with Science concentration)

025 Integrated Social Studies (for teacher candidates with Social Studies concentration)

## ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 1571	Calculus 1	
General Education Knowledge Domains		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.		
Arts and Humanities		6
Natural Sciences (2 courses, 1 lab)		7
This requirement met by courses in major.		
Social Science		6
Social Science GER		
PSYC 1560	General Psychology	
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
Subject Area Curriculum		
MATH 1572	Calculus 2	4
Chemistry Concentration		
All of the following:		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM Elective (select any 3000 or 4000 level course)		3
If primary science concentration is Chemistry, then take the following:		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
PHYS 2608	Sound	3
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1



GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2602	Introduction to Oceanography	3
GEOG 2630	Weather	3
ASTR 1504	Descriptive Astronomy	3
Select 5 s.h. from the following BIOL electives:		
BIOL 3741 & 3741L	Animal Diversity and Animal Diversity Laboratory	4
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	4
BIOL 3721	Genetics	3
BIOL 3762 & 3762L	Field Botany and Field Botany Laboratory	4
BIOL 3759	Evolution	3
BIOL 4890	Molecular Genetics	3
BIOL 4890L	Molecular Genetics Laboratory	1
BIOL 3730	Human Physiology	4
BIOL 3730L	Human Physiology Laboratory	1
Select a minimum of 3 s.h. from the following PHYS electives:		
PHYS 3703	Classical Mechanics and Dynamics	4
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
PHYS 3705L	Thermodynamics and Classical Statistical Mechanics Laboratory	1
PHYS 3704	Modern Physics	4
PHYS 3704L	Modern Physics Laboratory	1
PHYS 3722	Advanced Optics and Light	3
PHYS 3722L	Advanced Optics Laboratory	1
PHYS 4805	Undergraduate Physics Research	3
PHYS 2607	Physical Science for Middle and Secondary Education	4
Select one of the following E/SS electives:		
ENST 2600	Foundations of Environmental Studies	3
GEOL 2615	Geology and the Environment 1	3
GEOG 3703	Human Impacts on the Environment	3
GEOG 3730	Global Climates	3
GEOL 3720	Field Investigations in Geology	1-4
Professional Education Curriculum		
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
SED 3706	Principles of Teaching Adolescents <sup>2</sup>	3
EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years <sup>2</sup>	3
TEMC 3707	Science/Technology/Society <sup>1,2</sup>	3
Preclinical Curriculum		
SED 4800C	Science Methods for Adolescent and Young Adult Learners <sup>2</sup>	3
EDFN 3710	Educational Assessment	3
Student Teaching Curriculum		
SED 4842	Supervised Student Teaching: High School <sup>2</sup>	10
SED 4842A	Student Teaching Seminar for Secondary Education <sup>2</sup>	2
Total Semester Hours: 146-149 s.h.		

<sup>1</sup> Prerequisites for preclinical curriculum.

<sup>2</sup> Upper division course.

BCOE Notes:

#### Advisement:

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are required to meet with an advisor before registration.
- At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

#### Important Notes:

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
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- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, OR

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, AND/OR

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, AND/OR

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_\_ ENGL 2601 grade of "B" or better. If you receive a "C" or below you will need to retake the course.

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ GEOL 1505 or BIOL 2602 or CHEM 1516 or PHYS 2610

If student does not have a "B" average, student will be required to retake one or more of these courses until the "B" average is achieved.

- A grade of "C" or better is required in all required major courses. Courses taken as "CR/NC" will not count towards the major
- Professional education and block courses may only be repeated one time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

#### Upper-Division Application Process

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the “+” symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

**Program Notes:**

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

**Preclinical Application with Request for Graduation Evaluation**

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

**Student Teaching:**

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

**Graduation Process:**

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

**Completing a Bachelor of Science in Education without Licensure:**

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 1571	Calculus 1	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
EDFN 1501	Introduction to Education	3
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
PSYC 1560	General Psychology	3
<b>Semester Hours</b>		<b>21</b>
<b>Year 2</b>		
<b>Fall</b>		
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
CMST 1545	Communication Foundations	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
SPED 2630	Individuals with Exceptionalities in Society	3
<b>Semester Hours</b>		<b>19</b>
<b>Spring</b>		
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
ASTR 1504	Descriptive Astronomy	3
PSYC 3709	Psychology of Education	3
Arts and Humanities GER		3
Earth/Space Elective		3
<b>Semester Hours</b>		<b>21</b>
<b>Year 3</b>		
<b>Fall</b>		
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
GEOL 2602	Introduction to Oceanography	3

GEOG 2630	Weather	3
Social and Personal Awareness GER		3
Physics Elective		3-4
<b>Semester Hours</b>		<b>17-18</b>
<b>Spring</b>		
EDFN 3708	Education and Society	3
SED 3706	Principles of Teaching Adolescents	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
PHYS 2608	Sound	3
TEMC 3707	Science/Technology/Society	3
Social Science GER		3
Social and Personal Awareness Elective		3
<b>Semester Hours</b>		<b>21</b>
<b>Year 4</b>		
<b>Fall</b>		
EDFN 3710	Educational Assessment	3
SED 4800C	Science Methods for Adolescent and Young Adult Learners	3
Arts and Humanities GER		3
Chemistry Elective		3-5
Biology Elective		5
<b>Semester Hours</b>		<b>17-19</b>
<b>Spring</b>		
SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>146-149</b>

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

## Bachelor Science in Education in Integrated Sciences (7-12) - Adolescent License, Earth/Space Science Concentration

Dr. Katie Cripe, Program Coordinator

### OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education offers a four-year AYA Education Program (grades 7-12), Integrated Sciences/Earth-Space Concentration, approved by the Ohio Department of Education. The AYA Integrated Sciences License, Grades 7-12 (Earth/Space as the primary concentration), Bachelor of Science in Education degree requires a minimum of 147-150 semester hours of course work. The Integrated Science license qualifies the license holder to teach all areas of science (Biology, Chemistry, Earth/Space, and Physics). This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

### EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Teaching English to Speakers of Other Languages (TESOL) endorsement to increase marketability. Graduates wanting to teach College Credit Plus courses should consider a Master of Science in Education Content Area Concentration degree.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

### FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 120 hours of pre-clinical experiences in ad Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years

Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September

1 for the preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- EDFN 3710 Educational Assessment
- SED 3706 Principles of Teaching Adolescents

And

- SED 4800C Science Methods for Adolescent and Young Adult Learners

Or

- SED 4800E English Methods for Adolescent and Young Adult Learners

Or

- SED 4800M Mathematics Methods for Adolescent and Young Adult Learners

Or

- SED 4800S Social Studies Methods for Adolescent and Young Adult Learners

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

## ADVISEMENT

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

## REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

003 Assessment of Professional Knowledge Adolescence to Young Adult (7-12) (All AYA Teacher Candidates)

020 English Language Arts (for teacher candidates with ELA concentration)

027 Mathematics (for teacher candidates with Math concentration)

024 Integrated Science (for teacher candidates with Science concentration)

025 Integrated Social Studies (for teacher candidates with Social Studies concentration)

## ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	

MATH 1571	Calculus 1	
General Education Knowledge Domains		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.		
Arts and Humanities		6
Natural Sciences (2 courses, 1 lab)		7
This requirement met by courses in major		
Social Science		6
Social Science GER		
PSYC 1560	General Psychology	
Social and Personal Awareness		6
General Education Elective / First-Year Experience		
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
Subject Area Curriculum		
MATH 1572	Calculus 2	4
Earth/Space Science Concentration		
All of the following:		
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2605	Historical Geology	4
GEOL 2602	Introduction to Oceanography	3
GEOG 2630	Weather	3
ASTR 1504	Descriptive Astronomy	3
ASTR 2609	Moon and Planets	3
One of the following E/SS electives:		
GEOL 3720	Field Investigations in Geology	1-4
GEOL 2615	Geology and the Environment 1	3
ENST 2600	Foundations of Environmental Studies	3
One of the following E/SS Electives:		
GEOG 3703	Human Impacts on the Environment	3
GEOG 3730	Global Climates	3
GEOG 3737	Soils and Land Use	3
If primary science concentration is Earth/Space Science, then take the following:		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
PHYS 2608	Sound	3
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
Select 5 s.h. from the following BIOL electives:		
BIOL 3741 & 3741L	Animal Diversity and Animal Diversity Laboratory	4
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	4
BIOL 3721	Genetics	3

BIOL 3762 & 3762L	Field Botany and Field Botany Laboratory	4
BIOL 3759	Evolution	3
BIOL 4890	Molecular Genetics	3
BIOL 4890L	Molecular Genetics Laboratory	1
BIOL 3730	Human Physiology	4
BIOL 3730L	Human Physiology Laboratory	1
Select one of the following CHEM electives:		
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM 3785	Biochemistry 1	3
Select a minimum of 3 s.h from the following PHYS electives:		
PHYS 3703	Classical Mechanics and Dynamics	4
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
PHYS 3705L	Thermodynamics and Classical Statistical Mechanics Laboratory	1
PHYS 3704	Modern Physics	4
PHYS 3704L	Modern Physics Laboratory	1
PHYS 3722	Advanced Optics and Light	3
PHYS 3722L	Advanced Optics Laboratory	1
PHYS 4805	Undergraduate Physics Research	3
PHYS 2607	Physical Science for Middle and Secondary Education	4
Professional Education Curriculum		
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
SED 3706	Principles of Teaching Adolescents <sup>2</sup>	3
EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years <sup>2</sup>	3
TEMC 3707	Science/Technology/Society <sup>1,2</sup>	3
Preclinical Curriculum		
EDFN 3710	Educational Assessment	3
SED 4800C	Science Methods for Adolescent and Young Adult Learners <sup>2</sup>	3
Student Teaching Curriculum		
SED 4842	Supervised Student Teaching: High School <sup>2</sup>	10
SED 4842A	Student Teaching Seminar for Secondary Education <sup>2</sup>	2

Total Semester Hours for the Degree: 147-150 s.h.

<sup>1</sup> Prerequisites for preclinical curriculum.

<sup>2</sup> Upper division course.

BCOE Notes:

#### Advisement:

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are required to meet with an advisor before registration.
- At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the

Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

#### Important Notes:

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_\_ ENGL 2601 grade of "B" or better. **If you receive a "C" or below you will need to retake the course.**

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ GEOL 1505 or BIOL 2602 or CHEM 1516 or PHYS 2610

If student does not have a "B" average, student will be required to **retake one or more of these courses until the "B" average is achieved.**

- A grade of "C" or better is required in all required major courses. Courses taken as "CR/NC" will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

#### Upper-Division Application Process

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall

- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the "+" symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

#### Program Notes:

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

#### Preclinical Application with Request for Graduation Evaluation

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

#### Student Teaching:

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a "C" (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

#### Graduation Process:

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

#### Completing a Bachelor of Science in Education without Licensure:

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 1571	Calculus 1	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
GEOL 2605	Historical Geology	4
<b>Semester Hours</b>		<b>22</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
EDFN 1501	Introduction to Education	3
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
PSYC 1560	General Psychology	3
<b>Semester Hours</b>		<b>21</b>
<b>Year 2</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics laboratory 1	1
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
SPED 2630	Individuals with Exceptionalities in Society	3
<b>Semester Hours</b>		<b>19</b>
<b>Spring</b>		
PSYC 3709	Psychology of Education	3
ASTR 1504	Descriptive Astronomy	3
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
Arts and Humanities GER		3
Earth/Space Science Elective		3
Biology Elective		5
<b>Semester Hours</b>		<b>22</b>
<b>Year 3</b>		
<b>Fall</b>		
ASTR 2609	Moon and Planets	3
GEOL 2602	Introduction to Oceanography	3
GEOG 2630	Weather	3
Social and Personal Awareness GER		3
Physics Elective		3-4
Earth/Space Science Elective		3
<b>Semester Hours</b>		<b>18-19</b>
<b>Spring</b>		
SED 3706	Principles of Teaching Adolescents	3
EDFN 3708	Education and Society	3

TERG 3711	Reading Application in Content Areas, Secondary Years	3
PHYS 2608	Sound	3
TEMC 3707	Science/Technology/Society	3
Social and Personal Awareness GER		3
<b>Semester Hours</b>		<b>18</b>
<b>Year 4</b>		
<b>Fall</b>		
EDFN 3710	Educational Assessment	3
SED 4800C	Science Methods for Adolescent and Young Adult Learners	3
Social Science GER		3
Arts and Humanities GER		3
Chemistry Elective		3-5
<b>Semester Hours</b>		<b>15-17</b>
<b>Spring</b>		
SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>147-150</b>

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

# Bachelor of Science in Education in Integrated Sciences (7-12) - Adolescent License, Physics Concentration

Dr. Katie Cripe, Program Coordinator

## OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education offers a four-year AYA Education Program

(grades 7-12), Integrated Sciences/Physics Concentration, approved by the Ohio Department of Education. The AYA Integrated Sciences License, Grades 7-12 (Physics as the primary concentration), Bachelor of Science in Education degree requires a minimum of 144-147 semester hours of course work. The Integrated Science license qualifies the license holder to teach all areas of science (Biology, Chemistry, Earth/Space, and Physics). This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

## EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Teaching English to Speakers of Other Languages (TESOL) endorsement to increase marketability. Graduates wanting to teach College Credit Plus courses should consider a Master of Science in Education Content Area Concentration degree.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

## FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 120 hours of pre-clinical experiences in ad Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years

Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- EDFN 3710 Educational Assessment
- SED 3706 Principles of Teaching Adolescents

And

- SED 4800C Science Methods for Adolescent and Young Adult Learners

Or

- SED 4800E English Methods for Adolescent and Young Adult Learners

Or

- SED 4800M Mathematics Methods for Adolescent and Young Adult Learners

Or

- SED 4800S Social Studies Methods for Adolescent and Young Adult Learners

#### Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

## ADVISEMENT

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

## REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

003 Assessment of Professional Knowledge Adolescence to Young Adult (7-12) (All AYA Teacher Candidates)

020 English Language Arts (for teacher candidates with ELA concentration)

027 Mathematics (for teacher candidates with Math concentration)

024 Integrated Science (for teacher candidates with Science concentration)

025 Integrated Social Studies (for teacher candidates with Social Studies concentration)

## ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 1571	Calculus 1	
General Education Knowledge Domains		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.		
Arts and Humanities		6
Natural Sciences (2 courses, 1 lab)		7
This requirement met by courses in major.		
Social Science		6
Social Science GER		
PSYC 1560	General Psychology	
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3

TCED 1500		Introduction to Becoming a Teacher First Year Experience Course BCOE
Subject Area Curriculum		
MATH 1572	Calculus 2	4
Physics Concentration		
All of the following:		
PHYS 2608	Sound	3
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
Select 11 s.h. from the following:		11
PHYS 3703	Classical Mechanics and Dynamics	4
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
PHYS 3705L	Thermodynamics and Classical Statistical Mechanics Laboratory	1
PHYS 3704	Modern Physics	4
PHYS 3704L	Modern Physics Laboratory	1
PHYS 3722	Advanced Optics and Light	3
PHYS 3722L	Advanced Optics Laboratory	1
PHYS 4805	Undergraduate Physics Research	3
PHYS 2607	Physical Science for Middle and Secondary Education	4
If primary science concentration is Physics, then take the following:		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2602	Introduction to Oceanography	3
GEOG 2630	Weather	3
ASTR 1504	Descriptive Astronomy	3
Select 5 s.h. from the following BIOL electives:		
BIOL 3741	Animal Diversity	4
BIOL 3702	Microbiology	4
BIOL 3721	Genetics	3
BIOL 3762	Field Botany	4
BIOL 3759	Evolution	3
BIOL 4890	Molecular Genetics	3
BIOL 4890L	Molecular Genetics Laboratory	1
BIOL 3730	Human Physiology	4
Select one of the following CHEM electives:		
CHEM 2604	Quantitative Analysis	5
CHEM 3720	Organic Chemistry 2	4
CHEM 3785	Biochemistry 1	3
Select one of the following E/SS electives:		
ENST 2600	Foundations of Environmental Studies	3
GEOL 2615	Geology and the Environment 1	3
GEOG 3703	Human Impacts on the Environment	3
GEOG 3730	Global Climates	3
GEOL 3720	Field Investigations in Geology	1-4



Professional Education Curriculum		
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
SED 3706	Principles of Teaching Adolescents <sup>2</sup>	3
EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years <sup>2</sup>	3
TEMC 3707	Science/Technology/Society <sup>1,2</sup>	3
Preclinical Curriculum		
EDFN 3710	Educational Assessment	3
SED 4800C	Science Methods for Adolescent and Young Adult Learners <sup>2</sup>	3
Student Teaching Curriculum		
SED 4842	Supervised Student Teaching: High School <sup>2</sup>	10
SED 4842A	Student Teaching Seminar for Secondary Education <sup>2</sup>	2
Total Semester Hours: 144-147 s.h.		

<sup>1</sup> Prerequisites for preclinical curriculum.

<sup>2</sup> Upper division course.

BCOE Notes:

#### Advisement:

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are **required** to meet with an advisor before registration.
- **At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below** will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

#### Important Notes:

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_\_ ENGL 2601 grade of "B" or better. **If you receive a "C" or below you will need to retake the course.**

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ GEOL 1505 or BIOL 2602 or CHEM 1516 or PHYS 2610

If student does not have a "B" average, student will be required to **retake one or more of these courses until the "B" average is achieved.**

- A grade of "C" or better is required in all required major courses. Courses taken as "CR/NC" will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

#### Upper-Division Application Process

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the "+" symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

#### Program Notes:

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CFAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

#### Preclinical Application with Request for Graduation Evaluation

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.

- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

**Student Teaching:**

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

**Graduation Process:**

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

**Completing a Bachelor of Science in Education without Licensure:**

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 1571	Calculus 1	4
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
EDFN 1501	Introduction to Education	3
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics laboratory 1	1
<b>Semester Hours</b>		<b>19</b>
<b>Year 2</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
PSYC 1560	General Psychology	3

CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
SPED 2630	Individuals with Exceptionalities in Society	3
<b>Semester Hours</b>		<b>18</b>

**Spring**

PSYC 3709	Psychology of Education	3
ASTR 1504	Descriptive Astronomy	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
Arts and Humanities GER		3
Earth/Space Elective		3
Physics Elective		4
<b>Semester Hours</b>		<b>20</b>

**Year 3**

**Fall**

CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
GEOG 2630	Weather	3
GEOL 2602	Introduction to Oceanography	3
Social and Personal Awareness GER		3
Biology Elective		5
Physics Elective		3-4
<b>Semester Hours</b>		<b>21-22</b>

**Spring**

SED 3706	Principles of Teaching Adolescents	3
EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
TEMC 3707	Science/Technology/Society	3
PHYS 2608	Sound	3
Social Science GER		3
Social and Personal Awareness GER		3
<b>Semester Hours</b>		<b>21</b>

**Year 4**

**Fall**

EDFN 3710	Educational Assessment	3
SED 4800C	Science Methods for Adolescent and Young Adult Learners	3
Arts and Humanities GER		3
Chemistry Elective		3-5
Physics Elective		3
<b>Semester Hours</b>		<b>15-17</b>

**Spring**

SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>144-147</b>

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content

of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

## Bachelor of Science in Education in Integrated Social Studies (7-12) - Adolescent License

Dr. Katie Cripe, Program Coordinator

### OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education offers a four-year AYA Education Program (grades 7-12), Integrated Social Studies, approved by the Ohio Department of Education. The AYA Integrated Social Studies License, Grades 7-12, Bachelor of Science in Education degree requires a minimum of 122 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

### EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Teaching English to Speakers of Other Languages (TESOL) endorsement to increase marketability. Graduates wanting to teach College Credit Plus courses should consider a Master of Science in Education Content Area Concentration degree.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

### FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 120 hours of pre-clinical experiences in ad Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years

Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- EDFN 3710 Educational Assessment
- SED 3706 Principles of Teaching Adolescents

And

- SED 4800C Science Methods for Adolescent and Young Adult Learners

Or

- SED 4800E English Methods for Adolescent and Young Adult Learners

Or

- SED 4800M Mathematics Methods for Adolescent and Young Adult Learners

Or

- SED 4800S Social Studies Methods for Adolescent and Young Adult Learners

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

### ADVISEMENT

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

### REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

003 Assessment of Professional Knowledge Adolescence to Young Adult (7-12) (All AYA Teacher Candidates)

020 English Language Arts (for teacher candidates with ELA concentration)

027 Mathematics (for teacher candidates with Math concentration)

024 Integrated Science (for teacher candidates with Science concentration)

025 Integrated Social Studies (for teacher candidates with Social Studies concentration)

## ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
<b>Mathematics Requirement</b>		
One of the following courses may be taken to fulfill Math GER:		
Math 2652 is preferred math course if you are required to take Math Praxis Core		
MATH 2623	Quantitative Reasoning	
Or:		
MATH 2652	Mathematics for Early Childhood Teachers 2	
Arts and Humanities		6
Natural Sciences		7
GEOG 1503	Physical Geography	
GEOG 2630	Weather	
GEOG 2630L	Weather Lab	
Social Science		6
PSYC 1560	General Psychology	
HIST 1511	World Civilization to 1500	
Social and Personal Awareness		6
HIST 1512	World Civilization from 1500	
HIST 2606	Turning Points in United States History 2	
General Education Elective / First-Year Experience		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
<b>Subject Area Curriculum</b>		
ANTH 1500	Introduction to Anthropology	3
ECON 2610	Principles 1: Microeconomics	3
ECON 2631	Introductory Macroeconomics for Education Majors	3
HIST 2605	Turning Points in United States History 1	3
GEOG 2640	Human Geography	3
GEOG 3717	Geography of Europe	3
HIST 3702	Early America	3
HIST 3712	United States in Crisis: 1920-1945	3
HIST 3713	Cold War America: 1945-1990	3
HIST 3748	History of Ohio	3
HIST 3764	Modern Europe, 1715 to the Present	3
HIST 3795	The World since 1945	3
POL 1560	American Government	3
POL 2640	Contemporary World Governments	3
POL 2695	Model United Nations	1
SOC 1500	Introduction to Sociology	3
<b>Professional Education Curriculum</b>		
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
TERG 3711	Reading Application in Content Areas, Secondary Years <sup>2</sup>	3

SED 3706	Principles of Teaching Adolescents <sup>2</sup>	3
EDFN 3708	Education and Society	3
Preclinical Curriculum		
EDFN 3710	Educational Assessment	3
SED 4800S	Social Studies Methods for Adolescent and Young Adult Learners <sup>2</sup>	3
Student Teaching Curriculum		
SED 4842	Supervised Student Teaching: High School <sup>2</sup>	10
SED 4842A	Student Teaching Seminar for Secondary Education <sup>2</sup>	2

Total Semester Hours: 122 s.h.

<sup>1</sup> Prerequisite for preclinical curriculum

<sup>2</sup> Upper division course.

BCOE Notes:

**Advisement:**

- **It is highly recommended that all teacher candidates meet with an academic advisor every semester.**
- Freshmen, athletes, and students on warning and probation are **required** to meet with an advisor before registration.
- **At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below** will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

**Important Notes:**

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_\_ ENGL 1550 \_\_\_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_\_\_ ENGL 2601 grade of "B" or better. **If you receive a "C" or below you will need to retake the course.**

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ HIST 2606 or 2605

If student does not have a “B” average, student will be required to **retake one or more of these courses until the “B” average is achieved.**

- A grade of “C” or better is required in all required major courses. Courses taken as “CR/NC” will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

**Upper-Division Application Process**

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the “+” symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

**Program Notes:**

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

**Preclinical Application with Request for Graduation Evaluation**

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

**Student Teaching:**

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

**Graduation Process:**

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

**Completing a Bachelor of Science in Education without Licensure:**

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
POL 1560	American Government (counts as Social Science Elective)	3
EDFN 1501	Introduction to Education	3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
SPED 2630	Individuals with Exceptionalities in Society	3
PSYC 1560	General Psychology	3
HIST 1511	World Civilization to 1500	3
ANTH 1500	Introduction to Anthropology	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
POL 2640	Contemporary World Governments	3
HIST 1512	World Civilization from 1500	3
ECON 2610	Principles 1: Microeconomics	3
HIST 2605	Turning Points in United States History 1	3
GEOG 2640	Human Geography	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
HIST 2606	Turning Points in United States History 2	3
PSYC 3709	Psychology of Education	3
ECON 2631	Introductory Macroeconomics for Education Majors	3
HIST 3764	Modern Europe, 1715 to the Present	3

HIST 3702	Early America	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
HIST 3712	United States in Crisis: 1920-1945	3
HIST 3713	Cold War America: 1945-1990	3
GEOG 3717	Geography of Europe	3
GEOG 1503	Physical Geography	3
SOC 1500	Introduction to Sociology	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
Arts and Humanities GER		3
SED 3706	Principles of Teaching Adolescents	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
HIST 3795	The World since 1945	3
GEOG 2630	Weather	3
GEOG 2630L	Weather Lab	1
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
EDFN 3708	Education and Society	3
EDFN 3710	Educational Assessment	3
SED 4800S	Social Studies Methods for Adolescent and Young Adult Learners	3
POL 2695	Model United Nations	1
Arts and Humanities GER		3
HIST 3748	History of Ohio	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>122</b>

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

## Minor in Coaching Education P-16

The coaching minor is open to all students interested in obtaining a position coaching at the P-12 level. Course content focuses on knowledge and skills needed to effectively manage a team and provide developmentally appropriate activities for student athletes. Completion of this minor may assist an individual in securing an athletic director position. For more information, contact Dr. Mary LaVine.

COURSE	TITLE	S.H.
<b>Coaching Education Course Requirements</b>		
Select one of the following:		2-3
HEPE 1567	Performance and Analysis of Invasion Games (If coaching focus is basketball, field hockey, football, lacrosse, rugby, or soccer, 3 s.h.)	
HEPE 1574	Performance and Analysis of Target and Fielding Games (If coaching focus is baseball, bowling, golf, softball, or track and field, 3 s.h.)	
HEPE 1575	Performance and Analysis of Net and Wall Games (If coaching focus is tennis or volleyball, 2 s.h.)	
HEPE 2650	Ethics in Sport and Coaching	2
HEPE 2689	Scientific Basis of Fitness	3
HEPE 3740	Coaching the Young Athlete	3
HEPE 3750	Organization and Management of Sport Programs and Events	2
HEPE 3767	Pedagogy in P-12 Health Education and Physical Education	3
HEPE 4860	Internship for Coaching Education	3
<b>Total Semester Hours</b>		<b>18-19</b>

## Bachelor of Science in Education in Early Childhood Education/Early Childhood Intervention Specialist

## Bachelor of Science in Education in Early Childhood Education/Early Childhood Intervention Specialist Program

Dr. Crystal Ratican, Program Coordinator

### Overview

In cooperation with various discipline departments in the University, the Department of Teacher Education offers a four-year early childhood education program approved by the Ohio Department of Education. The Early Childhood License (P-3), Bachelor of Science in Education degree requires a minimum of 124 semester hours of course work. Please refer to the four-year plan for additional information. This teaching license requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

In 2016-2017 the program will be transitioning from an Early Childhood Education (ECE) license to a dual Early Childhood Education (ECE)/Early Childhood Intervention Specialist (ECIS) license. This new license will also include a Teaching English to Speakers of Other Languages (TESOL) Endorsement. This combined program can be completed in four years and will require 136 hours of coursework. This teaching license also requires passage

of the Ohio Assessments for Educators in order to be eligible to student teach. Please contact a BCOE advisor for additional information.

## EMPLOYMENT OPPORTUNITIES

Graduates of the new ECE/ECIS dual license will be able to work in the following areas: in schools as the classroom teacher of record, inclusion classroom teacher of record, or P-3 special education classroom of record. Graduates will also be trained to work with children who are currently learning the English language. Other employment opportunities include: working with regional Educational Service Providers, providing individual services to children within their homes, working with regionally based programs, medical providers, or private education companies.

## Field Experiences and Student Teaching

Students complete over 300 hours of pre-clinical experiences in addition to student teaching. Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

### Field Experiences

- ECIS 3700 Integrated Strategies in ECE/ECIS Inclusive Environments
- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 2601 Reading Application in Content Area Early Years
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading

### Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Early Childhood preclinical experience is scheduled during the fall and spring semesters. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for fall preclinical, and February 1 for spring preclinical. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- ECIS 4801 Teaching of Language Arts and Social Studies: The Early Years
- ECIS 4802 Teaching of Mathematics and Science: The Early Years
- ECIS 3790 Assessing Learning in Early Childhood Education PK3
- SPED 5866 Assessment and Referral of Exceptional Children and Youth for the Intervention Specialist
- ENGL 4857 TESOL Practicum

### Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- ECIS 4841 Supervised Student Teaching: ECE/ECIS
- ECIS 4842 Student Teaching Seminar in ECE/ECIS

## Advisement

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all early childhood majors must complete a preclinical experience.

## Required Assessments

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

001 Assessment of Professional Knowledge: Early Childhood (PK-3)

012 Early Childhood Education

090 Foundations of Reading

013 Early Childhood Special Education

021 Teaching English to Speakers of Other Languages

## Endorsements

The Department of Teacher Education offers the Early Childhood Generalist (Grades 4-5) endorsement. This endorsement may be added to an existing Early Childhood Education (P-3) license, for teaching grades 4-5 in Math, Science, Social Studies, and Language Arts. This endorsement is not a major and does not stand alone as an area of study. This endorsement may increase a teacher candidate's ability to acquire a teaching position. See an academic advisor for additional information.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2652	Mathematics for Early Childhood Teachers 2	
General Education Knowledge Domains		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.		
Arts and Humanities		
Select one of the following courses required to fulfill 3 SH Arts & Humanities GER:		3
ART 1540	Masterpieces of World Art (Select one of the following courses required to fulfill 3 SH Arts & Humanities GER: )	
or ART 1541	Survey of Art History 1	
Select one of the following courses required to fulfill 3 SH Arts & Humanities GER:		3
MUHL 2621	Music Literature and Appreciation	
or MUHL 2622	Popular Music in America	
Natural Sciences		7
Select two of the following courses and one lab required for ECE content: (3 SH+3 SH+1 SH=7 SH)		
ASTR 1504	Descriptive Astronomy	
ASTR 1504L	Astronomy Laboratory	
BIOL 1505	Biology and the Modern World	
BIOL 1505L	Biology and the Modern World Laboratory	
ENST 1500	Introduction to Environmental Science	
ENST 1500L	Introduction to Environmental Science Lab	
GEOG 2630	Weather	
GEOL 1504	The Dynamic Earth	
Social Science		6
The following 2 classes are required for Social Sciences:		
PSYC 1560	General Psychology	

PSYC 3755	Child Development	
Social and Personal Awareness		6
The following 2 classes are required for Social and Personal Awareness:		
HIST 2606	Turning Points in United States History 2	
ENGL 2651	Introduction to Language	
General Education Elective / First-Year Experience		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
Subject Area Curriculum		
ECIS 2629	Best Practices in ECIS	3
ECIS 2600	Educating the Whole Child	3
MATH 2651	Mathematics for Early Childhood Teachers 1 <sup>1</sup>	3
CHFM 3733L	Practicum Preprimary Settings (upper-division status) 1,2	3
ECIS 3700	Integrated Strategies in ECE/ECIS Inclusive Environments	4
SPED 3715	Characteristics and Needs of Children and Youth with Mild/Moderate Disabilities	3
SPED 5835	Classroom Management for Exceptional Children and Youth	4
SPED 5864	Service Coordination, Collaboration, and Consultation for Students with Special Needs	3
ENGL 3703	Literature for Young Children	3
ENGL 4850	Sociolinguistics	3
ENGL 4851	Language Acquisition	3
ENGL 4852	Linguistics and Literacy	3
ENGL 4856	TESOL Methods	3
Professional Education Curriculum		
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society 1	3
EDFN 3708	Education and Society	3
TERG 2601	Reading Application in Content Area Early Years 1	3
TERG 3701	Phonics in Reading Instruction	3
TERG 3702	Developmental Reading Instruction 1	3
TERG 3703	Assessment and Instruction in Reading (upper-division status) 2	3
Preclinical Curriculum		
ECIS 4801	Teaching of Language Arts and Social Studies: The Early Years	4
ECIS 4802	Teaching of Mathematics and Science: The Early Years	4
ECIS 3790	Assessing Learning in Early Childhood Education PK3	3
SPED 5866	Assessment and Referral of Exceptional Children and Youth for the Intervention Specialist	3
ENGL 4857	TESOL Practicum	3
Student Teaching Curriculum		
ECIS 4841	Supervised Student Teaching: ECE/ECIS	10
ECIS 4842	Student Teaching Seminar in ECE/ECIS	2
<b>Total Semester Hours</b>		<b>134</b>

1 Prerequisite for preclinical curriculum  
 2 Upper division course

BCOE Notes:

Advisement:

- **It is highly recommended that all teacher candidates meet with an academic advisor every semester.**
- Freshmen, athletes, and students on warning and probation are **required** to meet with an advisor before registration.
- **At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below** will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

**Important Notes:**

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

- \_\_\_ Minimum completion of 50 SH
- \_\_\_ Minimum 2.75 overall GPA
- Meet one of the following criteria:
- \_\_\_ Overall GPA 3.4 or better, **OR**
- \_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**
- \_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**
- \_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_ ENGL 1550 \_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_ ENGL 2601 grade of "B" or better. **If you receive a "C" or below you will need to retake the course.**

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_ EDFN 1501 \_\_\_ CMST 1545

\_\_\_ SPED 2630 \_\_\_ ECIS 2629

If student does not have a "B" average, student will be required to **retake one or more of these courses until the "B" average is achieved.**

- A grade of "C" or better is required in all required major courses. Courses taken as "CR/NC" will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

**Upper-Division Application Process**

- Upper division application and forms must be printed from the BCOE website.



- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the “+” symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

#### Program Notes:

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

#### Preclinical Application with Request for Graduation Evaluation

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

#### Student Teaching:

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

#### Graduation Process:

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

#### Completing a Bachelor of Science in Education without Licensure:

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 2651	Mathematics for Early Childhood Teachers 1	3
PSYC 1560	General Psychology	3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
EDFN 1501	Introduction to Education	3
Natural Science elective		3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 2652	Mathematics for Early Childhood Teachers 2	3
PSYC 3755	Child Development	3
CMST 1545	Communication Foundations	3
SPED 2630	Individuals with Exceptionalities in Society	3
ART 1540	Masterpieces of World Art	3
OR ART 1541 Survey Art History		
<b>Semester Hours</b>		<b>18</b>
<b>Year 2</b>		
<b>Fall</b>		
ECIS 2600	Educating the Whole Child	3
ENGL 2651	Introduction to Language	3
HIST 2606	Turning Points in United States History 2	3
ENGL 3703	Literature for Young Children	3
TERG 2601	Reading Application in Content Area Early Years	3
SPED 3715	Characteristics and Needs of Children and Youth with Mild/Moderate Disabilities	3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
ECIS 2629	Best Practices in ECIS	3
EDFN 3708	Education and Society	3
ENGL 4850	Sociolinguistics	3
TERG 3701	Phonics in Reading Instruction	3
ENGL 4851	Language Acquisition	3
Natural Science elective		3
<b>Semester Hours</b>		<b>18</b>
<b>Year 3</b>		
<b>Fall</b>		
ECIS 3700	Integrated Strategies in ECE/ECIS Inclusive Environments	4
CHFM 3733L	Practicum Preprimary Settings	3
PSYC 3709	Psychology of Education	3
TERG 3702	Developmental Reading Instruction	3
MUHL 2621	Music Literature and Appreciation	3
OR MUHL 2622 Popular Music in America		

Natural Science Lab		1
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
SPED 5864	Service Coordination, Collaboration, and Consultation for Students with Special Needs	3
TERG 3703	Assessment and Instruction in Reading <sup>2</sup>	3
ENGL 4852	Linguistics and Literacy	3
ENGL 4856	TESOL Methods	3
SPED 5835	Classroom Management for Exceptional Children and Youth	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
ECIS 4802	Teaching of Mathematics and Science: The Early Years	4
ECIS 4801	Teaching of Language Arts and Social Studies: The Early Years	4
ECIS 3790	Assessing Learning in Early Childhood Education PK3	3
SPED 5866	Assessment and Referral of Exceptional Children and Youth for the Intervention Specialist	3
ENGL 4857	TESOL Practicum	3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
ECIS 4841	Supervised Student Teaching: ECE/ECIS	10
ECIS 4842	Student Teaching Seminar in ECE/ECIS	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>134</b>

Youngstown State University does not discriminate on the basis of race, color, national origin, sex, sexual orientation, gender identity and/or expression, disability, age, religion or veteran/military status in its programs or activities. Please visit [www.su.edu/ada-accessibility](http://www.su.edu/ada-accessibility) for contact information for persons designated to handle questions about this policy.

## LEARNING OUTCOMES

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning.

Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

The Learning outcomes for this program, align with the six Standards of the National Association for the Education of Young Children (NAEYC):

- Effectively promote child development and learning in the classroom
- Build family and community relationships to support the development and learning of each child
- Utilize effective formative and summative assessments to support young children and their families.
- Use developmentally effective approaches in teaching and learning.
- Use content knowledge to build meaningful curriculum in prek-grade 3 classrooms.

The Learning outcomes for this program, also align with the seven Standards of the Early Childhood Special Education (ECSE):

- Learner Development and Individual Learning Differences
- Learning Environments
- Curricular Content Knowledge
- Assessment
- Instructional Planning and Strategies
- Professional Learning and Ethical Practice
- Collaboration

Professional Dispositions:

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

## Bachelor of Science in Education in Health Education (PK-12) - Multi-Age License

Dr. Mary LaVine, Program Coordinator

### Multi-Age Education (PK-12) Health Education

#### Overview

In cooperation with various academic disciplines in the University, the Department of Teacher Education offers a four-year Multi-Age Education, Physical Education license (grades PK-12) program approved by the Ohio Department of Education.

The Multi-Age PK-12 Health Education, Bachelor of Science in Education degree requires a minimum of 121 semester hours of course work including a semester of student teaching. Please refer to the four year plan for additional information. This teaching license requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

#### Employment Opportunities

Graduates of the Health Education program will be qualified to teach in the PK-12 Health Education classroom. Graduates also find rewarding careers in the private health sector. It is recommended that students in this major

consider adding the Physical Education Education license to increase marketability.

#### Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

## Field Experiences and Student Teaching

Students complete over 300 hours of pre-clinical experiences in addition to student teaching. Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, whole class teaching).

#### Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 2610 Reading Application in Content Areas Middle Years

#### Pre-clinical Field Experiences:

- HEPE 3715 Health Education for Middle School
- HEPE 3716 Health Education for High School

The pre-clinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Health Education pre-clinical experience occurs over two semesters. Applications for the pre-clinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for fall pre-clinical and February 1 for spring pre-clinical. Contact the Beeghly College of Education, academic advisors for minimum pre-clinical prerequisites.

#### Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- SED 4845 Supervised Student Teaching: Health (K-12)
- SED 4842A Student Teaching Seminar for Secondary Education

## Advisement

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a pre-clinical experience.

## Required Assessments

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

### 004 Assessment of Professional Knowledge: Multi-Age (PK-12)

#### 023 Health

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
One of the following courses may be taken to fulfill Math Ger. Math 2652 is preferred math course if you are required to take Math Praxis Core.		
MATH 2623	Quantitative Reasoning (or higher)	
Or:		
MATH 2652	Mathematics for Early Childhood Teachers 2	
<b>General Education Knowledge Domains</b>		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Courses listed below for GERs are required in the program.		
Arts and Humanities		6
PHIL 2625	Arts and Humanities Course	
Natural Sciences (2 courses, 1 lab)		8
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	
Natural Science Course		
Social Science		6
PSYC 1560	General Psychology	
PSYC 3758	Lifespan Development	
Social and Personal Awareness		6
PHLT 1568	Healthy Lifestyles	
SOC 2690	Identities and Differences	
General Education Elective		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
<b>Subject Area Curriculum</b>		
FNUT 1551	Normal Nutrition	3
ECIS 2600	Educating the Whole Child	3
KSS 1509	Meditation	1
HEPE 2628	Movement for Early Childhood	3
HEPE 2689	Scientific Basis of Fitness	3
HEPE 3766	Principles and Analysis of Motor Development (This is changing to a 4 s.h. course)	3
HEPE 3768	Advocacy and Best Practices in Health and Physical Education	2
HEPE 4899	Physiological Effects of Exercise on Children and Adolescents	3
PHLT 3731	Drug Use and Abuse	3
PHLT 3757	Health and Disease	4
PHLT 3791	Community Health	3
PSYC 2692	Human Sexuality	3
<b>Professional Education Curriculum</b>		
EDFN 1501	Introduction to Education	3
EDFN 3708	Education and Society	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society	3
TERG 2610	Reading Application in Content Areas Middle Years	3

Preclinical Curriculum (blocked courses must be taken concurrently and in the following sequence.

Preclinical (Fall Semester)

HEPE 3702	Health Education Theory and Methods <sup>1</sup>	4
HEPE 3767	Pedagogy in P-12 Health Education and Physical Education	3

Preclinical 2 (Fall Semester)

HEPE 3715	Health Education for Middle School <sup>2</sup>	3
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Preclinical 3 (Fall Semester)

HEPE 4808	Standards Based Assessment in Health and Physical Education	3
HEPE 3716	Health Education for High School <sup>2</sup>	3
HEPE 4889	Selected Topics in Health and Physical Education	2

Student Teaching Curriculum

SED 4845	Supervised Student Teaching: Health (K-12) <sup>2</sup>	10
SED 4842A	Student Teaching Seminar for Secondary Education <sup>2</sup>	2

**Total Semester Hours** **120**

1 Prerequisites for preclinical curriculum

2 Upper Division Courses

BCOE Notes:

**Advisement:**

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are **required** to meet with an advisor before registration.
- **At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below** will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

**Important Notes:**

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_\_ ENGL 2601 grade of "B" or better. **If you receive a "C" or below you will need to retake the course.**

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ HEPE 3702

If student does not have a "B" average, student will be required to **retake one or more of these courses until the "B" average is achieved.**

- A grade of "C" or better is required in all required major courses. Courses taken as "CR/NC" will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

**Upper-Division Application Process**

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the "+" symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

**Program Notes:**

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CFAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

**Preclinical Application with Request for Graduation Evaluation**

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.

- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical

- Preclinical candidates are screened for eligibility based on GPA and course completion.

**Student Teaching:**

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

**Graduation Process:**

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

**Completing a Bachelor of Science in Education without Licensure:**

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
ENGL 1550	Writing 1	3
FNUT 1551	Normal Nutrition	3
CMST 1545	Communication Foundations	3
Natural Science GER		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
EDFN 1501	Introduction to Education	3
PHLT 1568	Healthy Lifestyles	3
PSYC 1560	General Psychology	3
HEPE 2689	Scientific Basis of Fitness	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
PHLT 3791	Community Health	3
PSYC 2692	Human Sexuality	3
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
PHIL 2625	Introduction to Professional Ethics	3
HEPE 2628	Movement for Early Childhood	3
<b>Semester Hours</b>		<b>17</b>

<b>Spring</b>		
HEPE 3768	Advocacy and Best Practices in Health and Physical Education	2
HEPE 3766	Principles and Analysis of Motor Development (This course is changing to 4 s.h. )	3
Math Requirement		3
ECIS 2600	Educating the Whole Child	3
SOC 2690	Identities and Differences	3
KSS 1509	Meditation	1
<b>Semester Hours</b>		<b>15</b>

<b>Year 3</b>		
<b>Fall</b>		
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society	3
HEPE 3702	Health Education Theory and Methods <sup>1</sup>	4
TERG 2610	Reading Application in Content Areas Middle Years	3
HEPE 3767	Pedagogy in P-12 Health Education and Physical Education	3
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
EDFN 3708	Education and Society	3
PHLT 3757	Health and Disease	4
HEPE 3715	Health Education for Middle School	3
PSYC 3758	Lifespan Development	3
PHLT 3731	Drug Use and Abuse	3
<b>Semester Hours</b>		<b>16</b>

<b>Year 4</b>		
<b>Fall</b>		
HEPE 4899	Physiological Effects of Exercise on Children and Adolescents	3
HEPE 3716	Health Education for High School <sup>2</sup>	3
HEPE 4889	Selected Topics in Health and Physical Education	2
HEPE 4808	Standards Based Assessment in Health and Physical Education	3
Arts and Humanities GER		3
<b>Semester Hours</b>		<b>14</b>

<b>Spring</b>		
SED 4845	Supervised Student Teaching: Health (K-12) <sup>2</sup>	10
SED 4842A	Student Teaching Seminar for Secondary Education <sup>2</sup>	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>120</b>

<sup>1</sup> Prerequisites for preclinical courses

<sup>2</sup> Upper Division Courses

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

## Bachelor of Science in Education in Italian (PK-12) - Multi-Age License

Dr. Jennifer Behney, Program Coordinator

### Multi-Age Education (PK-12) Italian OVERVIEW

The program in Italian Education prepares students to become a teacher of foreign language at the high school, middle school, and elementary school levels in the state of Ohio. Graduates are fully licensed to teach Italian in Ohio (Multi-age P-12 Licensure) and are fully prepared in their knowledge of the target language, of best practices and standards in general pedagogy, and of specific Second Language Acquisition (SLA) theories and foreign language education techniques. Students enter student teaching in the last semester of study with a level of Advanced Low in both oral and written communication in the target language, as measured by the Oral Proficiency Interview (OPI) and the Writing Proficiency Test (WPT) and as required by the American Council on the Teaching of Foreign Languages (ACTFL).

The Multi-Age Italian License, Grades P-12, Bachelor of Science in Education degree requires a minimum of 122 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

#### Professional Dispositions

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

### Field Experiences and Student Teaching

Students complete over 120 hours of pre-clinical experiences in addition to student teaching. Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, whole class teaching).

Field Experiences:

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years

#### Pre-clinical Field Experiences

The pre-clinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Italian Education pre-clinical experience is scheduled during the fall semester. Applications for the pre-clinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the pre-clinical experience. Contact the Beeghly College of Education, academic advisors for minimum pre-clinical prerequisites.

- FNLG 4801 Methods of Foreign Language Teaching
- SED 3706 Principles of Teaching Adolescents
- EDFN 3710 Educational Assessment

#### Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- SED 4827 Supervised Student Teaching: Language (K-12)
- SED 4842A Student Teaching Seminar for Secondary Education

### Required Assessments

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

004 Assessment of Professional Knowledge: Multi-Age (PK-12)

ACTFL Oral Proficiency Interview

Writing Proficiency Test

These exams are administered by Language Testing International/ACTFL.

### Advisement

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a pre-clinical experience.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
<b>Mathematics Requirement</b>		
One of the following courses may be taken to fulfill Math GER:		
Math 2652 is preferred math course if you are required to take Math Praxis Core		
MATH 2623	Quantitative Reasoning	
or MATH 2652	Mathematics for Early Childhood Teachers 2	
or PHIL 2619	Introduction to Logic	

or STAT 2601 Introductory Statistics

#### General Education Knowledge Domains

Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.

Arts and Humanities	6
Natural Sciences (2 courses, 1 lab)	7
Social Science	6
PSYC 1560 General Psychology	
Social Science GER	
Social and Personal Awareness	6
General Education Elective / First-Year Experience	3
TCED 1500 Introduction to Becoming a Teacher First Year Experience Course BCOE	

#### Subject Area Curriculum

ITAL 2600	Intermediate Italian (A student who starts with ITAL 2605, may take ITAL 2600 Credit by Examination)	4
ITAL 2605	Advanced Intermediate Italian	4
ITAL 3702	Intensive Italian Review	4
ITAL 3724	Italian Linguistics and Phonetics	4
ITAL 4880	Italian Conversation and Composition Capstone <sup>1</sup>	4
FNLG 4899	Professional Development for Teachers	1
ENGL 4851	Language Acquisition	3
Five of the following courses:		20
ITAL 3735	Italian Civilization and Culture (4 s.h.)	
ITAL 3740	Survey of Italian Literature 1 (4 s.h.)	
ITAL 3741	Survey of Italian Literature 2 (4 s.h.)	
ITAL 3750	Contemporary Italian Literature (4 s.h.)	
ITAL 3760	Literary Representations of 19th Century Italy (4 s.h.)	
ITAL 3798	Study Abroad in Sicily (4 s.h.)	
Professional Education Curriculum (39 s.h.)		
EDFN 1501	Introduction to Education	3
SED 3706	Principles of Teaching Adolescents <sup>2</sup>	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years <sup>2</sup>	3

#### Preclinical Curriculum

FNLG 4801	Methods of Foreign Language Teaching	3
EDFN 3710	Educational Assessment	3

#### Student Teaching Curriculum

SED 4827	Supervised Student Teaching: Language (K-12) <sup>2</sup>	10
SED 4842A	Student Teaching Seminar for Secondary Education <sup>2</sup>	2

Total Semester Hours: 120

<sup>1</sup> Prerequisites for preclinical curriculum

<sup>2</sup> Upper Division Courses

BCOE Notes:

#### Advisement:

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are **required** to meet with an advisor before registration.

- **At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services.** If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

#### Important Notes:

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_\_ ENGL 2601 grade of "B" or better. **If you receive a "C" or below you will need to retake the course.**

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ ITAL 2605

If student does not have a "B" average, student will be required to **retake one or more of these courses until the "B" average is achieved.**

- A grade of "C" or better is required in all required major courses. Courses taken as "CR/NC" will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

#### Upper-Division Application Process

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:

- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the “+” symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

#### Program Notes:

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

#### Preclinical Application with Request for Graduation Evaluation

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

#### Student Teaching:

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

#### Graduation Process:

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

#### Completing a Bachelor of Science in Education without Licensure:

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.

- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ITAL 2600	Intermediate Italian	4
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
Or:		
MATH 2652	Mathematics for Early Childhood Teachers 2	
Or:		
PHIL 2619	Introduction to Logic	
Or:		
STAT 2601	Introductory Statistics	
Natural Science GER		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2 (GER requirement)	3
ITAL 2605	Advanced Intermediate Italian	4
CMST 1545	Communication Foundations (GER requirement)	3
PSYC 1560	General Psychology (GER #1)	3
Arts and Humanities GER		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
EDFN 1501	Introduction to Education	3
ITAL 3702	Intensive Italian Review	4
Natural Scienc/ Lab GER		4
Social and Personal Awareness GER		3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
SPED 2630	Individuals with Exceptionalities in Society	3
ITAL 37XX <sup>1</sup>		4
Social and Personal Awareness GER		3
ITAL 3798	Study Abroad in Sicily <sup>2</sup>	4
Social Science GER		3
<b>Semester Hours</b>		<b>17</b>
<b>Year 3</b>		
<b>Fall</b>		
ITAL 37XX <sup>1</sup>		4
PSYC 3709	Psychology of Education	3
EDFN 3708	Education and Society	3
ENGL 4851	Language Acquisition	3
ITAL 37XX <sup>1</sup>		4
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
ITAL 37XX <sup>1</sup>		4
SED 3706	Principles of Teaching Adolescents	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
FNLG 4899	Professional Development for Teachers	1



GER AH		3
<b>Semester Hours</b>		<b>14</b>
<b>Year 4</b>		
<b>Fall</b>		
ITAL 37XX <sup>1</sup>		4
ITAL 4880	Italian Conversation and Composition Capstone (or Elective)	4
FNLG 4801	Methods of Foreign Language Teaching	3
EDFN 3710	Educational Assessment	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
SED 4827	Supervised Student Teaching: Language (K-12)	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>120</b>

<sup>1</sup> Each semester one or two of the following courses will be offered: ITAL 3724, or ITAL 3735, or ITAL 3740, or ITAL 3741, or ITAL 3750, or ITAL 3760.

2 Take ITAL 3798 during even year for 4 sh; or take Elective during odd year for 3 sh.

3 Take Elective during odd year for 3 sh; or take ITAL 3798 during even year for 4 sh.

1. Prior to student teaching, students must achieve a level of Advanced Low on the Oral Proficiency Interview and on the Writing Proficiency Test, both administered by the American Council on the Teaching of Foreign Languages.
2. Students who change from the B.S. in Italian Education to the B.A. in Italian will need to complete a minor and, in addition to coursework in the Italian major, will need 20 hours at the 3700 level or higher.

## Learning Outcomes

- Cultural Understanding – The student will develop an understanding and appreciation of the history and culture of those areas in which the target language is spoken.
- Reading Comprehension – The student will be able to read and understand a variety of materials written in the target language. These materials may include but are not limited to: novels, plays, poetry, newspaper and magazine articles, and private correspondence (e.g., business communications).
- Listening Comprehension – The student will be able to understand the target language when spoken in a variety of contexts. These contexts may include but are not limited to: conversation with another individual or individuals, formal lectures, song, and film.
- Oral Expression – The student will be able to carry on a conversation and deliver a speech in the target language. The student will achieve a level of Advanced Low on the Oral Proficiency Interview administered by the American Council on the Teaching of Foreign Languages.
- Written Expression – The student will be able to compose in the target language a variety of written documents. These documents may include but are not limited to: formal and casual correspondence, essays, and creative works. The student will achieve a level of Advanced Low on the Writing Proficiency Test administered by the American Council on the Teaching of Foreign Languages.

# Bachelor of Science in Education in Middle Childhood Education (4-9), Mathematics-Language Arts Concentration

Dr. Megan List, Program Coordinator

## OVERVIEW

In cooperation with various discipline departments in the University, the Department of Teacher Education offers a four-year middle childhood license approved by the Ohio Department of Education. The Middle Childhood License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 127 semester hours of course work (each concentration area requires a specific number of semester hours) including a semester of student teaching. Please refer to the four year plan for additional information. This teaching license requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

## EMPLOYMENT OPPORTUNITIES

Graduates of the Middle Childhood Program will be qualified to teach in the grades 4-9 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

## FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 150 hours of preclinical experiences in ad Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading
- TERG 2610 Reading Application in Content Areas Middle Years

Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the

preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- TEMC 3702 Teaching & Learning in Middle Schools
- TEMC 4801 The Middle School Learning Community
- TEMC 3703 Thematic Instruction and Assessment Methods in Social Studies

And

- TEMC 3704 Teaching Mathematics in the Middle School

Or

- TEMC 3705 The Teaching of Science in the Middle School

Or

- TEMC 3706 Teaching Language Arts in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- TEMC 4802 Student Teaching: Middle Childhood

## ADVISEMENT

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

## REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

002 Assessment of Professional Knowledge (All MCE Candidates)

028 Middle Grades English Language Arts (for those with English Language Arts concentration)

030 Middle Grades Mathematics (for those with Mathematics concentration)

029 Middle Grades Science (for those with Science concentration)

031 Middle Grades Social Studies (for those with Social Studies concentration)

090 Foundations of Reading

## ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1 (requires a B average)	
ENGL 1551	Writing 2 (requires a B average)	
CMST 1545	Communication Foundations	
Mathematics Requirement		3

One of the following courses may be taken to fulfill Math GER

Math 2652 is preferred math course if you are required to take Math Praxis Core

MATH 2623 Quantitative Reasoning

OR:

MATH 2652 Mathematics for Early Childhood Teachers 2

(Preferred course if required to take Math Praxis Core)

OR:

MATH 2665 Foundations of Middle School Mathematics 2

(Mathematics Concentration takes this one)

General Education Knowledge Domains

Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Courses listed for GER's below are required in this program. See page 2 for other General Education recommendations.

Arts and Humanities	6
Natural Sciences (2 courses, 1 lab)	7
Social Science	6
PSYC 1560 General Psychology	
Social Science GER	
Social and Personal Awareness	6
General Education Elective	3
TCED 1500 Introduction to Becoming a Teacher First Year Experience Course BCOE	

Mathematics Concentration

MATH 1564 Foundations of Middle School Mathematics 1	4
MATH 2665 Foundations of Middle School Mathematics 2	4
MATH 3767 Algebra/Geometry for Middle School Teachers 1	4
MATH 3768 Algebra/Geometry for Middle School Teachers 2	4
MATH 4869 Functions, Calculus, and Applications for Middle School Teachers	3
MATH 4870 Mathematics Seminar for Middle School Teachers	2
STAT 2601 Introductory Statistics	3

Language Arts Concentration

CMST 2656 Interpersonal Communication	3
ENGL 2610 World Literature (AH/SPA)	3
ENGL 2618 American Literature and Diversity (AH/SPA)	3
ENGL 2651 Introduction to Language (SS/SPA)	3
ENGL 3700 Literary Study	3
ENGL 3704 Literature for Middle School Readers	3
ENGL 3730 Teaching Language Arts	3
ENGL 3739 Writing for Middle School Teachers	3

Professional Education Curriculum

EDFN 1501 Introduction to Education	3
PSYC 3709 Psychology of Education	3
SPED 2630 Individuals with Exceptionalities in Society <sup>1</sup>	3
EDFN 3708 Education and Society	3
TEMC 3702 Teaching & Learning in Middle Schools <sup>1,2</sup>	3

Reading Course Requirements

TERG 2610 Reading Application in Content Areas Middle Years	3
TERG 3701 Phonics in Reading Instruction	3
TERG 3702 Developmental Reading Instruction <sup>1</sup>	3
TERG 3703 Assessment and Instruction in Reading <sup>2</sup>	3

Preclinical Curriculum

TEMC 4801 The Middle School Learning Community <sup>2</sup>	3
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TEMC 4804	Middle Level Instructional Design and Student Outcomes <sup>2</sup>	3
TEMC 3704	Teaching Mathematics in the Middle School <sup>2</sup>	3
TEMC 3706	Teaching Language Arts in the Middle School <sup>2</sup>	3
Student Teaching Curriculum		
TEMC 4802	Student Teaching: Middle Childhood <sup>2</sup>	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education <sup>2</sup>	2
Total Hours Required for the Degree = 127		

<sup>1</sup> Prerequisites for preclinical curriculum.

<sup>2</sup> Upper division course.

BCOE Notes:

#### Advisement:

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are required to meet with an advisor before registration.
- At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

#### Important Notes:

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_\_ ENGL 2601 grade of "B" or better. **If you receive a "C" or below you will need to retake the course.**

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ ENGL 2651 or MATH 1564 or HIST 2606/1511 or BIOL 1505

If student does not have a "B" average, student will be required to **retake one or more of these courses until the "B" average is achieved.**

- A grade of "C" or better is required in all required major courses. Courses taken as "CR/NC" will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

#### Upper-Division Application Process

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the "+" symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

#### Program Notes:

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CFAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

#### Preclinical Application with Request for Graduation Evaluation

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

#### Student Teaching:

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a "C" (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

**Graduation Process:**

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

**Completing a Bachelor of Science in Education without Licensure:**

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 1564	Foundations of Middle School Mathematics 1	4
PSYC 1560	General Psychology	3
ENGL 2618	American Literature and Diversity (counts as AH or SPA Elective)	3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 2665	Foundations of Middle School Mathematics 2	4
SPED 2630	Individuals with Exceptionalities in Society	3
EDFN 1501	Introduction to Education	3
ENGL 2610	World Literature (counts as AH or SPA Elective)	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4
CMST 1545	Communication Foundations	3
TERG 2610	Reading Application in Content Areas Middle Years	3
ENGL 2651	Introduction to Language (counts as SPA Elective)	3
Social and Personal Awareness GER		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
MATH 3768	Algebra/Geometry for Middle School Teachers 2	4
ENGL 3700	Literary Study	3
CMST 2656	Interpersonal Communication	3

TERG 3701	Phonics in Reading Instruction	3
Natural Science GER		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3
STAT 2601	Introductory Statistics	3
TERG 3702	Developmental Reading Instruction	3
ENGL 3704	Literature for Middle School Readers	3
PSYC 3709	Psychology of Education	3
Social Science GER		3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
MATH 4870	Mathematics Seminar for Middle School Teachers	2
ENGL 3730	Teaching Language Arts	3
ENGL 3739	Writing for Middle School Teachers	3
TEMC 3702	Teaching & Learning in Middle Schools	3
TERG 3703	Assessment and Instruction in Reading	3
Natural Science/Lab GER		4
<b>Semester Hours</b>		<b>18</b>
<b>Year 4</b>		
<b>Fall</b>		
TEMC 4801	The Middle School Learning Community	3
TEMC 3704	Teaching Mathematics in the Middle School	3
TEMC 3706	Teaching Language Arts in the Middle School	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes	3
EDFN 3708	Education and Society	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>127</b>

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.

- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

The learning outcomes for this program, align with the 5 Standards of the Association for Middle Level Education (AMLE):

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.
- Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle level teacher candidates demonstrate their ability to assist all young adolescents in understanding the interdisciplinary nature of knowledge. They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language/dialects, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.
- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, information literacy skills, and technologies to meet the learning needs of all young adolescents (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand their complex roles as teachers of young adolescents. They engage in practices and behaviors that develop their competence as middle level professionals. They are informed advocates for young adolescents and middle level education, and work successfully with colleagues, families, community agencies, and community members. Middle level teacher candidates demonstrate positive dispositions and engage in ethical professional behaviors.

## **Bachelor of Science in Education in Middle Childhood Education (4-9), Mathematics-Social Studies Concentration**

Dr. Megan List, Program Coordinator

### **OVERVIEW**

In cooperation with various academic discipline departments in the University, the Department of Teacher Education offers a four-year Middle Childhood Education Program (grades 4-9), Math and Social Studies Concentration, approved by the Ohio Department of Education. The Middle Childhood, Math and Social Studies License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 137 semester hours of course work. This

teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

### **EMPLOYMENT OPPORTUNITIES**

Graduates of the Middle Childhood Program will be qualified to teach in the grades 4-9 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

### **FIELD EXPERIENCES AND STUDENT TEACHING**

Students complete over 150 hours of preclinical experiences in ad Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading
- TERG 2610 Reading Application in Content Areas Middle Years

Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- TEMC 3702 Teaching & Learning in Middle Schools
- TEMC 4801 The Middle School Learning Community
- TEMC 3703 Thematic Instruction and Assessment Methods in Social Studies

And

- TEMC 3704 Teaching Mathematics in the Middle School

Or

- TEMC 3705 The Teaching of Science in the Middle School

Or

- TEMC 3706 Teaching Language Arts in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- TEMC 4802 Student Teaching: Middle Childhood

## ADVISEMENT

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

## REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

002 Assessment of Professional Knowledge (All MCE Candidates)

028 Middle Grades English Language Arts (for those with English Language Arts concentration)

030 Middle Grades Mathematics (for those with Mathematics concentration)

029 Middle Grades Science (for those with Science concentration)

031 Middle Grades Social Studies (for those with Social Studies concentration)

090 Foundations of Reading

## ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1 (requires a B average)	
ENGL 1551	Writing 2 (requires a B average)	
CMST 1545	Communication Foundations	
<b>Mathematics Requirement</b>		
One of the following courses may be taken to fulfill Math GER. Math 2652 is preferred math course if you are required to take Math Praxis Core		
MATH 2623	Quantitative Reasoning	
OR:		
MATH 2652	Mathematics for Early Childhood Teachers 2	
OR:		
MATH 2665	Foundations of Middle School Mathematics 2 (Mathematics Concentration takes this one)	
<b>General Education Domains</b>		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Courses listed for GER's below are required in this program. See page 2 for other General Education recommendations.		
Arts and Humanities		6
This requirement may be fulfilled by courses in your concentration areas.		
Natural Sciences (2 courses, 1 lab)		7

This requirement may be fulfilled by courses in your concentration areas.

Social Science		6
PSYC 1560	General Psychology	
This requirement may be fulfilled by courses in your concentration areas.		
Social and Personal Awareness		6
This requirement may be fulfilled by courses in your concentration areas.		
General Education Elective		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
<b>Mathematics Concentration</b>		
MATH 1564	Foundations of Middle School Mathematics 1	4
MATH 2665	Foundations of Middle School Mathematics 2	4
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4
MATH 3768	Algebra/Geometry for Middle School Teachers 2	4
MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3
MATH 4870	Mathematics Seminar for Middle School Teachers	2
STAT 2601	Introductory Statistics	3
<b>Social Studies Concentration</b>		
HIST 1511	World Civilization to 1500 (SS)	3
HIST 1512	World Civilization from 1500 (SS/SPA)	3
HIST 2606	Turning Points in United States History 2 (SS/SPA)	3
HIST 3748	History of Ohio	3
GEOG 2640	Human Geography (SS/SPA)	3
GEOG 3717	Geography of Europe	3
POL 1560	American Government (SS)	3
POL 2640	Contemporary World Governments (SS/SPA)	3
POL 2695	Model United Nations	1
ECON 2610	Principles 1: Microeconomics (SS)	3
ECON 2631	Introductory Macroeconomics for Education Majors (SS)	3
ANTH 1500	Introduction to Anthropology (SS)	3
<b>Professional Education Curriculum</b>		
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
EDFN 3708	Education and Society	3
TEMC 3702	Teaching & Learning in Middle Schools <sup>1,2</sup>	3
<b>Reading Course Requirements</b>		
TERG 3701	Phonics in Reading Instruction	3
TERG 2610	Reading Application in Content Areas Middle Years	3
TERG 3702	Developmental Reading Instruction <sup>1</sup>	3
TERG 3703	Assessment and Instruction in Reading <sup>2</sup>	3
<b>Preclinical Curriculum</b>		
TEMC 4801	The Middle School Learning Community <sup>2</sup>	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes <sup>2</sup>	3
TEMC 3703	Thematic Instruction and Assessment Methods in Social Studies <sup>2</sup>	3
TEMC 3704	Teaching Mathematics in the Middle School <sup>2</sup>	3
<b>Student Teaching Curriculum</b>		
TEMC 4802	Student Teaching: Middle Childhood <sup>2</sup>	10

TEMC 4803	Student Teaching Seminar for Middle Childhood Education <sup>2</sup>	2
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Total Hours Required for the Degree: 137 s.h.

<sup>1</sup> Prerequisites for preclinical curriculum.

<sup>2</sup> Upper division course.

BCOE Notes:

**Advisement:**

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are required to meet with an advisor before registration.
- At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

**Important Notes:**

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_ Minimum completion of 50 SH

\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_ Overall GPA 3.4 or better, OR

\_\_\_ ACT scores of Reading-21, English-18, Math-22, AND/OR

\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, AND/OR

\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_ ENGL 1550 \_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_ ENGL 2601 grade of "B" or better. If you receive a "C" or below you will need to retake the course.

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_ EDFN 1501 \_\_\_ CMST 1545

\_\_\_ SPED 2630 \_\_\_ ENGL 2651 or MATH 1564 or HIST 2606/1511 or BIOL 1505

If student does not have a "B" average, student will be required to retake one or more of these courses until the "B" average is achieved.

- A grade of "C" or better is required in all required major courses. Courses taken as "CR/NC" will not count towards the major

- Professional education and block courses may only be repeated one time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

**Upper-Division Application Process**

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - September 1—to register for Upper Division Courses for Spring
  - February 1—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the "+" symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

**Program Notes:**

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

**Preclinical Application with Request for Graduation Evaluation**

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - September 1—for Fall preclinical
  - February 1—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

**Student Teaching:**

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a "C" (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.

- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

**Graduation Process:**

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

**Completing a Bachelor of Science in Education without Licensure:**

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 1564	Foundations of Middle School Mathematics 1	4
POL 1560	American Government	3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
Natural Science/Lab GER		4
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 2665	Foundations of Middle School Mathematics 2	4
SPED 2630	Individuals with Exceptionalities in Society	3
PSYC 1560	General Psychology	3
EDFN 1501	Introduction to Education	3
HIST 1511	World Civilization to 1500	3
<b>Semester Hours</b>		<b>19</b>
<b>Year 2</b>		
<b>Fall</b>		
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4
GEOG 2640	Human Geography	3
HIST 1512	World Civilization from 1500	3
PSYC 3709	Psychology of Education	3
TERG 2610	Reading Application in Content Areas Middle Years	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>19</b>
<b>Spring</b>		
MATH 3768	Algebra/Geometry for Middle School Teachers 2	4
TERG 3701	Phonics in Reading Instruction	3
STAT 2601	Introductory Statistics	3
GEOG 3717	Geography of Europe	3
POL 2640	Contemporary World Governments (counts as SS or SPA Elective)	3
ANTH 1500	Introduction to Anthropology (counts as SS Elective)	3
<b>Semester Hours</b>		<b>19</b>

**Year 3**

**Fall**

MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3
TERG 3702	Developmental Reading Instruction	3
HIST 2606	Turning Points in United States History 2	3
ECON 2610	Principles 1: Microeconomics	3
Arts and Humanities GER		3
Arts and Humanities GER		3
<b>Semester Hours</b>		<b>18</b>

**Spring**

MATH 4870	Mathematics Seminar for Middle School Teachers	2
HIST 3748	History of Ohio	3
TEMC 3702	Teaching & Learning in Middle Schools	3
TERG 3703	Assessment and Instruction in Reading	3
ECON 2631	Introductory Macroeconomics for Education Majors	3
Natural Science GER		3
<b>Semester Hours</b>		<b>17</b>

**Year 4**

**Fall**

TEMC 4801	The Middle School Learning Community	3
TEMC 3704	Teaching Mathematics in the Middle School	3
TEMC 3703	Thematic Instruction and Assessment Methods in Social Studies	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes	3
EDFN 3708	Education and Society	3
POL 2695	Model United Nations	1
<b>Semester Hours</b>		<b>16</b>

**Spring**

TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>137</b>

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.



- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

The learning outcomes for this program, align with the 5 Standards of the Association for Middle Level Education (AMLE):

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.
- Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle level teacher candidates demonstrate their ability to assist all young adolescents in understanding the interdisciplinary nature of knowledge. They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language/dialects, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.
- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, information literacy skills, and technologies to meet the learning needs of all young adolescents (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand their complex roles as teachers of young adolescents. They engage in practices and behaviors that develop their competence as middle level professionals. They are informed advocates for young adolescents and middle level education, and work successfully with colleagues, families, community agencies, and community members. Middle level teacher candidates demonstrate positive dispositions and engage in ethical professional behaviors.

## Bachelor of Science in Education in Middle Childhood Education (4-9), Mathematics-Science Concentration

Dr. Megan List, Program Coordinator

### OVERVIEW

In cooperation with various academic discipline departments in the University, the Department of Teacher Education offers a four-year Middle Childhood Education Program (grades 4-9), Math and Science Concentration, approved by the Ohio Department of Education. The Middle Childhood Math and Science License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 136 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

### EMPLOYMENT OPPORTUNITIES

Graduates of the Middle Childhood Program will be qualified to teach in the grades 4-9 classroom. Additional opportunities may be available in the

private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

### FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 150 hours of preclinical experiences in ad Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading
- TERG 2610 Reading Application in Content Areas Middle Years

Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- TEMC 3702 Teaching & Learning in Middle Schools
- TEMC 4801 The Middle School Learning Community
- TEMC 3703 Thematic Instruction and Assessment Methods in Social Studies

And

- TEMC 3704 Teaching Mathematics in the Middle School

Or

- TEMC 3705 The Teaching of Science in the Middle School

Or

- TEMC 3706 Teaching Language Arts in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- TEMC 4802 Student Teaching: Middle Childhood

## ADVISEMENT

Advisement is provided by the academic advisors in the Beechly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

## REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

002 Assessment of Professional Knowledge (All MCE Candidates)

028 Middle Grades English Language Arts (for those with English Language Arts concentration)

030 Middle Grades Mathematics (for those with Mathematics concentration)

029 Middle Grades Science (for those with Science concentration)

031 Middle Grades Social Studies (for those with Social Studies concentration)

090 Foundations of Reading

## ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1 (requires a B average)	
ENGL 1551	Writing 2 (requires a B average)	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
OR		
MATH 2652	Mathematics for Early Childhood Teachers 2 (Preferred course if required to take Math Praxis Core)	
OR		
MATH 2665	Foundations of Middle School Mathematics 2 (Mathematics Concentration takes this one)	
General Education Knowledge Domains		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.		
Arts and Humanities		6
Natural Sciences (2 courses, 1 lab)		7
Social Science		6
PSYC 1560	General Psychology	
Social Science GER		
Social and Personal Awareness		6
General Education Elective		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
<b>Mathematics Concentration</b>		
MATH 1564	Foundations of Middle School Mathematics 1	4

MATH 2665	Foundations of Middle School Mathematics 2	4
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4
MATH 3768	Algebra/Geometry for Middle School Teachers 2	4
MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3
MATH 4870	Mathematics Seminar for Middle School Teachers	2
STAT 2601	Introductory Statistics	3
Science Concentration		
BIOL 1505	Biology and the Modern World	3
CHEM 1500	Chemistry in Modern Living	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2605	Historical Geology	4
PHYS 2607	Physical Science for Middle and Secondary Education	4
ASTR 1504	Descriptive Astronomy	3
ENST 2600	Foundations of Environmental Studies	3
ENST 2600L	Foundations of Environmental Studies Laboratory	1
GEOG 2630	Weather	3
TEMC 3707	Science/Technology/Society <sup>1,2</sup>	3
Professional Education Curriculum		
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
EDFN 3708	Education and Society	3
TEMC 3702	Teaching & Learning in Middle Schools <sup>1,2</sup>	3
Reading Course Requirement		
TERG 3701	Phonics in Reading Instruction	3
TERG 2610	Reading Application in Content Areas Middle Years	3
TERG 3702	Developmental Reading Instruction <sup>1</sup>	3
TERG 3703	Assessment and Instruction in Reading <sup>2</sup>	3
Preclinical Curriculum		
TEMC 4801	The Middle School Learning Community <sup>2</sup>	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes <sup>2</sup>	3
TEMC 3704	Teaching Mathematics in the Middle School <sup>2</sup>	3
TEMC 3705	The Teaching of Science in the Middle School <sup>2</sup>	3
Student Teaching Curriculum		
TEMC 4802	Student Teaching: Middle Childhood <sup>2</sup>	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education <sup>2</sup>	2

Total Hours Required for the Degree: 136 s.h.

<sup>1</sup> Prerequisites for preclinical curriculum.

<sup>2</sup> Upper division course.

BCOE Notes:

**Advisement:**

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are **required** to meet with an advisor before registration.
- **At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the**

Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

#### Important Notes:

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_\_ ENGL 2601 grade of "B" or better. **If you receive a "C" or below you will need to retake the course.**

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ ENGL 2651 or MATH 1564 or HIST 2606/1511 or BIOL 1505

If student does not have a "B" average, student will be required to **retake one or more of these courses until the "B" average is achieved.**

- A grade of "C" or better is required in all required major courses. Courses taken as "CR/NC" will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

#### Upper-Division Application Process

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline

- **September 1**—to register for Upper Division Courses for Spring
- **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the "+" symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

#### Program Notes:

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CFAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

#### Preclinical Application with Request for Graduation Evaluation

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

#### Student Teaching:

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a "C" (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

#### Graduation Process:

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

#### Completing a Bachelor of Science in Education without Licensure:

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 1564	Foundations of Middle School Mathematics 1	4
PSYC 1560	General Psychology	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 2665	Foundations of Middle School Mathematics 2	4
SPED 2630	Individuals with Exceptionalities in Society	3
CHEM 1500	Chemistry in Modern Living	3
EDFN 1501	Introduction to Education	3
BIOL 1505	Biology and the Modern World	3
<b>Semester Hours</b>		<b>19</b>
<b>Year 2</b>		
<b>Fall</b>		
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4
ENST 2600	Foundations of Environmental Studies	3
ENST 2600L	Foundations of Environmental Studies Laboratory	1
PSYC 3709	Psychology of Education	3
TERG 2610	Reading Application in Content Areas Middle Years	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
MATH 3768	Algebra/Geometry for Middle School Teachers 2	4
PHYS 2607	Physical Science for Middle and Secondary Education	4
GEOG 2630	Weather	3
TERG 3701	Phonics in Reading Instruction	3
Social Science GER		3
Arts and Humanities GER		3
<b>Semester Hours</b>		<b>20</b>
<b>Year 3</b>		
<b>Fall</b>		
MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3
STAT 2601	Introductory Statistics	3
ASTR 1504	Descriptive Astronomy	3
TERG 3702	Developmental Reading Instruction	3
Arts and Humanities GER		3
Social and Personal Awareness GER		3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
MATH 4870	Mathematics Seminar for Middle School Teachers	2
TEMC 3707	Science/Technology/Society	3
GEOL 2605	Historical Geology	4
TEMC 3702	Teaching & Learning in Middle Schools	3
TERG 3703	Assessment and Instruction in Reading	3

Social and Personal Awareness GER		3
<b>Semester Hours</b>		<b>18</b>
<b>Year 4</b>		
<b>Fall</b>		
TEMC 4801	The Middle School Learning Community	3
TEMC 3704	Teaching Mathematics in the Middle School	3
TEMC 3705	The Teaching of Science in the Middle School	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes	3
EDFN 3708	Education and Society	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>136</b>

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

The learning outcomes for this program, align with the 5 Standards of the Association for Middle Level Education (AMLE):

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.
- Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle level teacher candidates demonstrate their ability to assist all young adolescents in understanding the interdisciplinary nature of knowledge.

They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language/dialects, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).

- Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.
- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, information literacy skills, and technologies to meet the learning needs of all young adolescents (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand their complex roles as teachers of young adolescents. They engage in practices and behaviors that develop their competence as middle level professionals. They are informed advocates for young adolescents and middle level education, and work successfully with colleagues, families, community agencies, and community members. Middle level teacher candidates demonstrate positive dispositions and engage in ethical professional behaviors.

## Bachelor of Science in Education in Middle Childhood Education (4-9), Language Arts-Social Studies Concentration

Dr. Megan List, Program Coordinator

### OVERVIEW

In cooperation with various academic discipline departments in the University, the Department of Teacher Education offers a four-year Middle Childhood Education Program (grades 4-9), Social Studies and Language Arts Concentration, approved by the Ohio Department of Education. The Middle Childhood Social Studies and Language Arts License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 134 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

### EMPLOYMENT OPPORTUNITIES

Graduates of the Middle Childhood Program will be qualified to teach in the grades 4-9 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

### FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 150 hours of preclinical experiences in ad Field experiences are included in the following courses and offer opportunities to

provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading
- TERG 2610 Reading Application in Content Areas Middle Years

Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- TEMC 3702 Teaching & Learning in Middle Schools
- TEMC 4801 The Middle School Learning Community
- TEMC 3703 Thematic Instruction and Assessment Methods in Social Studies

And

- TEMC 3704 Teaching Mathematics in the Middle School

Or

- TEMC 3705 The Teaching of Science in the Middle School

Or

- TEMC 3706 Teaching Language Arts in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- TEMC 4802 Student Teaching: Middle Childhood

### ADVISEMENT

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

### REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

002 Assessment of Professional Knowledge (All MCE Candidates)

028 Middle Grades English Language Arts (for those with English Language Arts concentration)

- 030 Middle Grades Mathematics (for those with Mathematics concentration)
- 029 Middle Grades Science (for those with Science concentration)
- 031 Middle Grades Social Studies (for those with Social Studies concentration)
- 090 Foundations of Reading

## ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
<b>Core Competencies</b>		
12		
ENGL 1550	Writing 1 (requires a B average)	
ENGL 1551	Writing 2 (requires a B average)	
CMST 1545	Communication Foundations	
<b>Mathematics Requirement</b>		
One of the following courses may be taken to fulfill Math Ger. Math 2652 is preferred math course if you are required to take Math Praxis Core.		
MATH 2623	Quantitative Reasoning	
OR:		
MATH 2652	Mathematics for Early Childhood Teachers 2	
OR:		
MATH 2665	Foundations of Middle School Mathematics 2	
(Mathematics Concentration takes this one)		
<b>General Education Knowledge Domains</b>		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Courses listed for GER's below are required in this program. See page 2 for other General education recommendations.		
Arts and Humanities 6		
Natural Sciences (2 courses, 1 lab) 7		
Social Science 6		
PSYC 1560	General Psychology	
Social Science GER		
Social and Personal Awareness 6		
General Education Elective 3		
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
<b>Language Arts Concentration</b>		
CMST 2656	Interpersonal Communication	3
ENGL 2610	World Literature (AH/SPA)	3
ENGL 2618	American Literature and Diversity (AH/SPA)	3
ENGL 2651	Introduction to Language (SS/SPA)	3
ENGL 3700	Literary Study	3
ENGL 3704	Literature for Middle School Readers	3
ENGL 3730	Teaching Language Arts	3
ENGL 3739	Writing for Middle School Teachers	3
<b>Social Studies Concentration</b>		
HIST 1511	World Civilization to 1500 (SS)	3
HIST 1512	World Civilization from 1500 (SS/SPA)	3
HIST 2606	Turning Points in United States History 2 (SS/SPA)	3
HIST 3748	History of Ohio	3
GEOG 2640	Human Geography (SS/SPA)	3
GEOG 3717	Geography of Europe	3
POL 1560	American Government (SS)	3

POL 2640	Contemporary World Governments	3
POL 2695	Model United Nations	1
ECON 2610	Principles 1: Microeconomics (SS)	3
ECON 2631	Introductory Macroeconomics for Education Majors (SS)	3
ANTH 1500	Introduction to Anthropology (SS)	3
<b>Professional Education Curriculum</b>		
PSYC 3709	Psychology of Education	3
EDFN 1501	Introduction to Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
EDFN 3708	Education and Society	3
TEMC 3702	Teaching & Learning in Middle Schools <sup>1,2</sup>	3
<b>Reading Course Requirements</b>		
TERG 3701	Phonics in Reading Instruction	3
TERG 2610	Reading Application in Content Areas Middle Years	3
TERG 3702	Developmental Reading Instruction <sup>1</sup>	3
TERG 3703	Assessment and Instruction in Reading <sup>2</sup>	3
<b>Preclinical Curriculum</b>		
TEMC 4801	The Middle School Learning Community <sup>2</sup>	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes <sup>2</sup>	3
TEMC 3703	Thematic Instruction and Assessment Methods in Social Studies <sup>2</sup>	3
TEMC 3706	Teaching Language Arts in the Middle School <sup>2</sup>	3
<b>Student Teaching Curriculum</b>		
TEMC 4802	Student Teaching: Middle Childhood <sup>2</sup>	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education <sup>2</sup>	2

Total Hours Required for the Degree: 134 s.h.

<sup>1</sup> Prerequisites for preclinical curriculum.

<sup>2</sup> Upper division course.

BCOE Notes:

### Advisement:

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are required to meet with an advisor before registration.
- At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

### Important Notes:

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.

- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- “B” average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet “B” average above must also complete:

\_\_\_\_ ENGL 2601 grade of “B” or better. **If you receive a “C” or below you will need to retake the course.**

- “B” average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ ENGL 2651 or MATH 1564 or HIST 2606/1511 or BIOL 1505

If student does not have a “B” average, student will be required to **retake one or more of these courses until the “B” average is achieved.**

- A grade of “C” or better is required in all required major courses. Courses taken as “CR/NC” will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

#### Upper-Division Application Process

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the “+” symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

#### Program Notes:

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social

Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.

- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CFAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

#### Preclinical Application with Request for Graduation Evaluation

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

#### Student Teaching:

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

#### Graduation Process:

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

#### Completing a Bachelor of Science in Education without Licensure:

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
ENGL 2618	American Literature and Diversity (counts as AH or SPA Elective)	3
POL 1560	American Government (counts as SS Elective)	3
EDFN 1501	Introduction to Education	3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
Natural Science/Lab GER		4
<b>Semester Hours</b>		<b>19</b>

**Spring**

ENGL 1551	Writing 2	3
ENGL 2610	World Literature (counts as AH or SPA Elective)	3
SPED 2630	Individuals with Exceptionalities in Society	3
PSYC 1560	General Psychology	3
HIST 1511	World Civilization to 1500	3
MATH 2623	Quantitative Reasoning	3

**Semester Hours** 18

**Year 2****Fall**

ANTH 1500	Introduction to Anthropology	3
HIST 1512	World Civilization from 1500	3
CMST 1545	Communication Foundations	3
TERG 2610	Reading Application in Content Areas Middle Years	3
ENGL 2651	Introduction to Language	3
ECON 2610	Principles 1: Microeconomics	3

**Semester Hours** 18

**Spring**

ENGL 3700	Literary Study	3
TERG 3701	Phonics in Reading Instruction	3
CMST 2656	Interpersonal Communication	3
GEOG 2640	Human Geography	3
POL 2640	Contemporary World Governments (counts as SS or SPA Elective)	3
ECON 2631	Introductory Macroeconomics for Education Majors	3

**Semester Hours** 18

**Year 3****Fall**

ENGL 3704	Literature for Middle School Readers	3
HIST 2606	Turning Points in United States History 2	3
PSYC 3709	Psychology of Education	3
TERG 3702	Developmental Reading Instruction	3
Natural Science GER		3

**Semester Hours** 15

**Spring**

ENGL 3730	Teaching Language Arts	3
ENGL 3739	Writing for Middle School Teachers	3
HIST 3748	History of Ohio	3
GEOG 3717	Geography of Europe	3
TEMC 3702	Teaching & Learning in Middle Schools	3
TERG 3703	Assessment and Instruction in Reading	3

**Semester Hours** 18

**Year 4****Fall**

TEMC 4801	The Middle School Learning Community	3
TEMC 3703	Thematic Instruction and Assessment Methods in Social Studies	3
TEMC 3706	Teaching Language Arts in the Middle School	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes	3
EDFN 3708	Education and Society	3
POL 2695	Model United Nations	1

**Semester Hours** 16

**Spring**

TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2

**Semester Hours** 12

**Total Semester Hours** 134

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

The learning outcomes for this program, align with the 5 Standards of the Association for Middle Level Education (AMLE):

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.
- Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle level teacher candidates demonstrate their ability to assist all young adolescents in understanding the interdisciplinary nature of knowledge. They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language/dialects, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.
- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, information literacy skills, and technologies to meet the learning needs of all young adolescents (e.g.,



race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).

- Middle level teacher candidates understand their complex roles as teachers of young adolescents. They engage in practices and behaviors that develop their competence as middle level professionals. They are informed advocates for young adolescents and middle level education, and work successfully with colleagues, families, community agencies, and community members. Middle level teacher candidates demonstrate positive dispositions and engage in ethical professional behaviors.

## Bachelor of Science in Education in Middle Childhood Education (4-9), Language Arts-Science Concentration

Dr. Megan List, Program Coordinator

### OVERVIEW

In cooperation with various academic discipline departments in the University, the Department of Teacher Education offers a four-year Middle Childhood Education Program (grades 4-9), Science and Language Arts Concentration, approved by the Ohio Department of Education. The Middle Childhood Science and Language Arts License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 130 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

### EMPLOYMENT OPPORTUNITIES

Graduates of the Middle Childhood Program will be qualified to teach in the grades 4-9 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

### FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 150 hours of preclinical experiences in ad Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading
- TERG 2610 Reading Application in Content Areas Middle Years

Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- TEMC 3702 Teaching & Learning in Middle Schools
- TEMC 4801 The Middle School Learning Community
- TEMC 3703 Thematic Instruction and Assessment Methods in Social Studies

And

- TEMC 3704 Teaching Mathematics in the Middle School

Or

- TEMC 3705 The Teaching of Science in the Middle School

Or

- TEMC 3706 Teaching Language Arts in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- TEMC 4802 Student Teaching: Middle Childhood

### ADVISEMENT

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

### REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

002 Assessment of Professional Knowledge (All MCE Candidates)

028 Middle Grades English Language Arts (for those with English Language Arts concentration)

030 Middle Grades Mathematics (for those with Mathematics concentration)

029 Middle Grades Science (for those with Science concentration)

031 Middle Grades Social Studies (for those with Social Studies concentration)

090 Foundations of Reading

### ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies 12		
ENGL 1550	Writing 1 (requires a B average)	
ENGL 1551	Writing 2 (requires a B average)	
CMST 1545	Communication Foundations	
Mathematics Requirement		
One of the following courses may be taken to fulfill Math Ger. Math 2652 is preferred math course if you are required to take Math Praxis Core.		
MATH 2623	Quantitative Reasoning	
OR:		
MATH 2652	Mathematics for Early Childhood Teachers 2	
OR:		
MATH 2665	Foundations of Middle School Mathematics 2 (Mathematics Concentration takes this one)	
General Education Knowledge Domain		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Courses listed for GER's below are required in this program. See page 2 for other General Education recommendations.		
Arts and Humanities 6		
Natural Sciences (2 courses, 1 lab) 7		
Social Science 6		
PSYC 1560	General Psychology	
Social Science GER		
Social and Personal Awareness 6		
General Education Elective 3		
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
<b>Language Arts Concentration</b>		
CMST 2656	Interpersonal Communication	3
ENGL 2610	World Literature (AH/SPA)	3
ENGL 2618	American Literature and Diversity (AH/SPA)	3
ENGL 2651	Introduction to Language (SS/SPA)	3
ENGL 3700	Literary Study	3
ENGL 3704	Literature for Middle School Readers	3
ENGL 3730	Teaching Language Arts	3
ENGL 3739	Writing for Middle School Teachers	3
Science Concentration		
BIOL 1505	Biology and the Modern World (NS)	3
CHEM 1500	Chemistry in Modern Living (NS)	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory (NS)	4
GEOL 2605	Historical Geology	4
PHYS 2607	Physical Science for Middle and Secondary Education (NS)	4
ASTR 1504	Descriptive Astronomy (NS)	3
ENST 2600	Foundations of Environmental Studies	3
ENST 2600L	Foundations of Environmental Studies Laboratory	1
GEOG 2630	Weather	3
TEMC 3707	Science/Technology/Society (upper division status - for science concentration area candidates only) <sup>1,2</sup>	3
Professional Education Curriculum		
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
EDFN 3708	Education and Society	3

TEMC 3702	Teaching & Learning in Middle Schools <sup>1,2</sup>	3
Reading Course Requirements		
TERG 3701	Phonics in Reading Instruction	3
TERG 2610	Reading Application in Content Areas Middle Years	3
TERG 3702	Developmental Reading Instruction <sup>1</sup>	3
TERG 3703	Assessment and Instruction in Reading <sup>2</sup>	3
Preclinical Curriculum		
TEMC 4801	The Middle School Learning Community <sup>2</sup>	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes <sup>2</sup>	3
TEMC 3705	The Teaching of Science in the Middle School <sup>2</sup>	3
TEMC 3706	Teaching Language Arts in the Middle School <sup>2</sup>	3
Student Teaching Curriculum		
TEMC 4802	Student Teaching: Middle Childhood <sup>2</sup>	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education <sup>2</sup>	2

Total Hours Required for the Degree: 130 s.h.

- <sup>1</sup> Prerequisites for preclinical curriculum.
- <sup>2</sup> Upper division course.

BCOE Notes:

**Advisement:**

- **It is highly recommended that all teacher candidates meet with an academic advisor every semester.**
- Freshmen, athletes, and students on warning and probation are **required** to meet with an advisor before registration.
- **At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services.** If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

**Important Notes:**

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- “B” average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet “B” average above must also complete:

\_\_\_\_ ENGL 2601 grade of “B” or better. **If you receive a “C” or below you will need to retake the course.**

- “B” average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ ENGL 2651 or MATH 1564 or HIST 2606/1511 or BIOL 1505

If student does not have a “B” average, student will be required to **retake one or more of these courses until the “B” average is achieved.**

- A grade of “C” or better is required in all required major courses. Courses taken as “CR/NC” will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

**Upper-Division Application Process**

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the “+” symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

**Program Notes:**

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

**Preclinical Application with Request for Graduation Evaluation**

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

**Student Teaching:**

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

**Graduation Process:**

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

**Completing a Bachelor of Science in Education without Licensure:**

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
ENGL 2618	American Literature and Diversity (counts as AH or SPA Elective)	3
PSYC 1560	General Psychology	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
ENGL 2610	World Literature (counts as AH or SPA Elective)	3
EDFN 1501	Introduction to Education	3
ENST 2600 & 2600L	Foundations of Environmental Studies and Foundations of Environmental Studies Laboratory	4
MATH 2623	Quantitative Reasoning	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
ENGL 2651	Introduction to Language	3

SPED 2630	Individuals with Exceptionalities in Society	3
CMST 1545	Communication Foundations	3
CHEM 1500	Chemistry in Modern Living	3
TERG 2610	Reading Application in Content Areas Middle Years	3

Social Science GER		3
<b>Semester Hours</b>		<b>18</b>

**Spring**

ENGL 3700	Literary Study	3
TERG 3701	Phonics in Reading Instruction	3
ASTR 1504	Descriptive Astronomy	3
PHYS 2607	Physical Science for Middle and Secondary Education	4
GEOL 2605	Historical Geology	4

<b>Semester Hours</b>		<b>17</b>
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**Year 3****Fall**

ENGL 3704	Literature for Middle School Readers	3
BIOL 1505	Biology and the Modern World	3
CMST 2656	Interpersonal Communication	3
TERG 3702	Developmental Reading Instruction	3
GEOG 2630	Weather	3
PSYC 3709	Psychology of Education	3

<b>Semester Hours</b>		<b>18</b>
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**Spring**

ENGL 3730	Teaching Language Arts	3
ENGL 3739	Writing for Middle School Teachers	3
TEMC 3707	Science/Technology/Society	3
TEMC 3702	Teaching & Learning in Middle Schools	3
TERG 3703	Assessment and Instruction in Reading	3
Social and Personal Awareness GER		3

<b>Semester Hours</b>		<b>18</b>
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**Year 4****Fall**

TEMC 4801	The Middle School Learning Community	3
TEMC 3705	The Teaching of Science in the Middle School	3
TEMC 3706	Teaching Language Arts in the Middle School	3
EDFN 3708	Education and Society	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes	3

<b>Semester Hours</b>		<b>15</b>
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**Spring**

TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2

<b>Semester Hours</b>		<b>12</b>
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<b>Total Semester Hours</b>		<b>130</b>
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- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

The learning outcomes for this program, align with the 5 Standards of the Association for Middle Level Education (AMLE):

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.
- Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle level teacher candidates demonstrate their ability to assist all young adolescents in understanding the interdisciplinary nature of knowledge. They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language/dialects, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.
- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, information literacy skills, and technologies to meet the learning needs of all young adolescents (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand their complex roles as teachers of young adolescents. They engage in practices and behaviors that develop their competence as middle level professionals. They are informed advocates for young adolescents and middle level education, and work successfully with colleagues, families, community agencies, and community members. Middle level teacher candidates demonstrate positive dispositions and engage in ethical professional behaviors.

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

# Bachelor of Science in Education in Middle Childhood Education (4-9), Science-Social Studies Concentration

Dr. Megan List, Program Coordinator

## OVERVIEW

In cooperation with various academic discipline departments in the University, the Department of Teacher Education offers a four-year Middle Childhood Education Program (grades 4-9), Science and Social Studies Concentration, approved by the Ohio Department of Education. The Middle Childhood Science and Social Studies License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 140 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

## EMPLOYMENT OPPORTUNITIES

Graduates of the Middle Childhood Program will be qualified to teach in the grades 4-9 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

## FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 150 hours of preclinical experiences in ad Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading
- TERG 2610 Reading Application in Content Areas Middle Years

Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the

preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- TEMC 3702 Teaching & Learning in Middle Schools
- TEMC 4801 The Middle School Learning Community
- TEMC 3703 Thematic Instruction and Assessment Methods in Social Studies

And

- TEMC 3704 Teaching Mathematics in the Middle School

Or

- TEMC 3705 The Teaching of Science in the Middle School

Or

- TEMC 3706 Teaching Language Arts in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- TEMC 4802 Student Teaching: Middle Childhood

## ADVISEMENT

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

## REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

002 Assessment of Professional Knowledge (All MCE Candidates)

028 Middle Grades English Language Arts (for those with English Language Arts concentration)

030 Middle Grades Mathematics (for those with Mathematics concentration)

029 Middle Grades Science (for those with Science concentration)

031 Middle Grades Social Studies (for those with Social Studies concentration)

090 Foundations of Reading

## ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
<b>Core Competencies</b>		
ENGL 1550	Writing 1 (requires a B average)	12
ENGL 1551	Writing 2 (requires a B average)	
CMST 1545	Communication Foundations	
<b>Mathematics Requirement</b>		

One of the following courses may be taken to fulfill Math Ger. Math 2652 is preferred math course if you are required to take Math Praxis Core.

MATH 2623	Quantitative Reasoning	
OR:		
MATH 2652	Mathematics for Early Childhood Teachers 2	
OR:		
MATH 2665	Foundations of Middle School Mathematics 2	
(Mathematics Concentration takes this one)		

**General Education Knowledge Domains**

Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Courses listed for GER's below are required in this program. See page 2 for other General Education recommendations.

Arts and Humanities	6
Natural Sciences (2 courses, 1 lab)	7
Social Science	6
PSYC 1560	General Psychology
Social Science GER	
Social and Personal Awareness	6
General Education Elective	3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE

**Science Concentration**

BIOL 1505	Biology and the Modern World (NS)	3
CHEM 1500	Chemistry in Modern Living (NS)	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory (NS)	4
GEOL 2605	Historical Geology	4
PHYS 2607	Physical Science for Middle and Secondary Education (NS)	4
ASTR 1504	Descriptive Astronomy (NS)	3
ENST 2600	Foundations of Environmental Studies	3
ENST 2600L	Foundations of Environmental Studies Laboratory	1
GEOG 2630	Weather	3
TEMC 3707	Science/Technology/Society <sup>1,2</sup>	3

**Social Studies Concentration**

HIST 1511	World Civilization to 1500 (SS)	3
HIST 1512	World Civilization from 1500 (SS/SPA)	3
HIST 2606	Turning Points in United States History 2 (SS/SPA)	3
HIST 3748	History of Ohio	3
GEOG 2640	Human Geography (SS/SPA)	3
GEOG 3717	Geography of Europe	3
POL 1560	American Government (SS)	3
POL 2640	Contemporary World Governments (SS/SPA)	3
POL 2695	Model United Nations	1
ECON 2610	Principles 1: Microeconomics (SS)	3
ECON 2631	Introductory Macroeconomics for Education Majors (SS)	3
ANTH 1500	Introduction to Anthropology (SS)	3

**Professional Education Curriculum**

EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
EDFN 3708	Education and Society	3
TEMC 3702	Teaching & Learning in Middle Schools <sup>1,2</sup>	3

**Reading Course Requirements**

TERG 3701	Phonics in Reading Instruction	3
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TERG 2610	Reading Application in Content Areas Middle Years	3
TERG 3702	Developmental Reading Instruction <sup>1</sup>	3
TERG 3703	Assessment and Instruction in Reading <sup>2</sup>	3
Preclinical Curriculum		
TEMC 4801	The Middle School Learning Community <sup>2</sup>	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes <sup>2</sup>	3
TEMC 3703	Thematic Instruction and Assessment Methods in Social Studies <sup>2</sup>	3
TEMC 3705	The Teaching of Science in the Middle School <sup>2</sup>	3
Student Teaching Curriculum		
TEMC 4802	Student Teaching: Middle Childhood <sup>2</sup>	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education <sup>2</sup>	2

Total Hours Required for the Degree: 140 s.h.

- <sup>1</sup> Prerequisites for preclinical curriculum.
- <sup>2</sup> Upper division course.

BCOE Notes:

**Advisement:**

- **It is highly recommended that all teacher candidates meet with an academic advisor every semester.**
- Freshmen, athletes, and students on warning and probation are **required** to meet with an advisor before registration.
- **At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services.** If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

**Important Notes:**

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet “B” average above must also complete:

\_\_\_\_ ENGL 2601 grade of “B” or better. **If you receive a “C” or below you will need to retake the course.**

- “B” average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ ENGL 2651 or MATH 1564 or HIST 2606/1511 or BIOL 1505

If student does not have a “B” average, student will be required to **retake one or more of these courses until the “B” average is achieved.**

- A grade of “C” or better is required in all required major courses. Courses taken as “CR/NC” will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

#### Upper-Division Application Process

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the “+” symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

#### Program Notes:

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

#### Preclinical Application with Request for Graduation Evaluation

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.

- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical

- Preclinical candidates are screened for eligibility based on GPA and course completion.

#### Student Teaching:

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

#### Graduation Process:

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

#### Completing a Bachelor of Science in Education without Licensure:

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
POL 1560	American Government (counts as SS or SPA Elective)	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
EDFN 1501	Introduction to Education	3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
<b>Semester Hours</b>		<b>19</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CHEM 1500	Chemistry in Modern Living	3
SPED 2630	Individuals with Exceptionalities in Society	3
PSYC 1560	General Psychology	3
HIST 1511	World Civilization to 1500	3
BIOL 1505	Biology and the Modern World	3
<b>Semester Hours</b>		<b>18</b>
<b>Year 2</b>		
<b>Fall</b>		
GEOG 2640	Human Geography (counts as SS Elective)	3
HIST 1512	World Civilization from 1500	3
ENST 2600	Foundations of Environmental Studies	3

ENST 2600L	Foundations of Environmental Studies Laboratory	1
HIST 2606	Turning Points in United States History 2	3
CMST 1545	Communication Foundations	3
TERG 2610	Reading Application in Content Areas Middle Years	3
<b>Semester Hours</b>		<b>19</b>
<b>Spring</b>		
PHYS 2607	Physical Science for Middle and Secondary Education	4
TERG 3701	Phonics in Reading Instruction	3
ASTR 1504	Descriptive Astronomy	3
GEOG 2630	Weather	3
POL 2640	Contemporary World Governments (counts as SS Elective)	3
GEOG 3717	Geography of Europe	3
<b>Semester Hours</b>		<b>19</b>
<b>Year 3</b>		
<b>Fall</b>		
TERG 3702	Developmental Reading Instruction	3
ANTH 1500	Introduction to Anthropology (counts as SS or SPA Elective)	3
ECON 2610	Principles 1: Microeconomics	3
PSYC 3709	Psychology of Education	3
Arts and Humanities GER		3
Arts and Humanities GER		3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
ECON 2631	Introductory Macroeconomics for Education Majors	3
TEMC 3707	Science/Technology/Society	3
HIST 3748	History of Ohio	3
GEOG 2605	Historical Geology	4
TEMC 3702	Teaching & Learning in Middle Schools	3
TERG 3703	Assessment and Instruction in Reading	3
<b>Semester Hours</b>		<b>19</b>
<b>Year 4</b>		
<b>Fall</b>		
TEMC 4801	The Middle School Learning Community	3
TEMC 3703	Thematic Instruction and Assessment Methods in Social Studies	3
TEMC 3705	The Teaching of Science in the Middle School	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes	3
POL 2695	Model United Nations	1
EDFN 3708	Education and Society	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>140</b>

as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

The learning outcomes for this program, align with the 5 Standards of the Association for Middle Level Education (AMLE):

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.
- Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle level teacher candidates demonstrate their ability to assist all young adolescents in understanding the interdisciplinary nature of knowledge. They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language/dialects, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.
- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, information literacy skills, and technologies to meet the learning needs of all young adolescents (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand their complex roles as teachers of young adolescents. They engage in practices and behaviors that develop their competence as middle level professionals. They are informed advocates for young adolescents and middle level education, and work successfully with colleagues, families, community agencies, and community members. Middle level teacher candidates demonstrate positive dispositions and engage in ethical professional behaviors.

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness



# Bachelor of Science in Education in Physical Education (PK-12) - Multi-Age License

Dr. Mary LaVine, Program Coordinator

## Multi-Age Education (PK-12) Physical Education OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education offers a four-year Multi-Age Education, Physical Education license (grades PK-12) program approved by the Ohio Department of Education.

The Multi-Age PK-12 Physical Education, Bachelor of Science in Education degree requires a minimum of 124 semester hours of coursework including a semester of student teaching. Please refer to the four-year plan for additional information. This teaching license requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

### Employment Opportunities

Graduates of the Physical Education program will be qualified to teach in the PK-12 physical education classroom. Graduates also find rewarding careers in the private business sector with corporations that offer fitness programs for their employees and in the recreation sector. It is recommended that students in this major consider adding the Health Education license and the Adapted Physical Education endorsement to increase marketability.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

### Field Experiences and Student Teaching

Students complete over 300 hours of pre-clinical experiences in addition to student teaching. Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 2610 Reading Application in Content Areas Middle Years

Pre-clinical Field Experiences

The pre-clinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The physical education pre-clinical experience occurs over two semesters. Applications for the pre-clinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for fall

pre-clinical and February 1 for spring pre-clinical. Contact the Beeghly College of Education, academic advisors for minimum pre-clinical prerequisites.

- Fall Semester Year 3
- HEPE 3767 Pedagogy in P-12 Health Education and Physical Education
- HEPE 4808 Standards Based Assessment in Health and Physical Education
- Spring Semester Year 3
- HEPE 4876 Teaching of Elementary Physical Education
- Fall Semester Year 4
- HEPE 4878 Teaching of Middle/Secondary Physical Education
- HEPE 4895 Introduction to Adapted Physical Education

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- SED 4842A Student Teaching Seminar for Secondary Education
- SED 4846 Supervised Student Teaching: Physical Education (K-12)

### Advisement

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a pre-clinical experience.

### Required Assessments

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

004 Assessment of Professional Knowledge: Multi-Age (PK-12)

034 Physical Education

### Endorsements

The Department of Teacher Education offers the Adapted Physical Education Endorsement. This endorsement may increase a teacher candidate's ability to acquire a teaching position. This endorsement may be added to an existing Physical Education PK-12 teaching license. This endorsement is not a major and does not stand alone as an area of study. See an academic advisor for additional information.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
One of the following courses may be taken to fulfill Math GER. Math 2652 is preferred math course if you are required to take Math Praxis Core.		
MATH 2623	Quantitative Reasoning	
Or:		
MATH 2652	Mathematics for Early Childhood Teachers 2	

General Education Knowledge Domains

Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Courses listed below for GERs are required in the program.

Arts and Humanities		6
PHIL 2625	Introduction to Professional Ethics	
Arts and Humanities Course		
Natural Sciences (2 courses, one must include a lab)		8
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	
Natural Science Course		
Social Science		6
PSYC 1560	General Psychology	
Social Sciences Course		
Social and Personal Awareness		6
PHLT 1568	Healthy Lifestyles	
FNUT 1551	Normal Nutrition	
General Education Elective / First-Year Experience		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
Subject Area Curriculum		
HEPE 1567	Performance and Analysis of Invasion Games	3
HEPE 1574	Performance and Analysis of Target and Fielding Games	3
HEPE 1575	Performance and Analysis of Net and Wall Games	3
HEPE 1579	Rhythmic Movement for Children	1
HEPE 2610	Introduction to Outdoor Pursuits	3
HEPE 2628	Movement for Early Childhood	3
HEPE 2689	Scientific Basis of Fitness	3
HEPE 3766	Principles and Analysis of Motor Development (This course is changing to 4 s.h.)	3
HEPE 3768	Advocacy and Best Practices in Health and Physical Education	2
HEPE 4895	Introduction to Adapted Physical Education <sup>2</sup>	4
PSYC 2692	Human Sexuality	3
HEPE 4899	Physiological Effects of Exercise on Children and Adolescents	3
HEPE 3740	Coaching the Young Athlete	3
HEPE 3750	Organization and Management of Sport Programs and Events	2
Professional Education Curriculum		
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
EDFN 3708	Education and Society	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
TERG 2610	Reading Application in Content Areas Middle Years	3
Preclinical Curriculum		
(Blocked courses must be taken concurrently and in the following sequence)		
Preclinical 1 (Fall Semester)		
HEPE 3767	Pedagogy in P-12 Health Education and Physical Education <sup>1</sup>	3
HEPE 4889	Selected Topics in Health and Physical Education	2
Preclinical 2 (Spring Semester)		
HEPE 4876	Teaching of Elementary Physical Education <sup>2</sup>	3
Preclinical 3 (Fall Semester)		
HEPE 4878	Teaching of Middle/Secondary Physical Education <sup>2</sup>	3

HEPE 4808	Standards Based Assessment in Health and Physical Education <sup>1</sup>	3
HEPE 3780	Methods of Teaching Dance <sup>2</sup>	2
Student Teaching Curriculum		
SED 4846	Supervised Student Teaching: Physical Education (K-12) <sup>2</sup>	10
SED 4842A	Student Teaching Seminar for Secondary Education <sup>2</sup>	2
<b>Total Semester Hours</b>		<b>123</b>

<sup>1</sup> Prerequisites for perclinical curriculum.

<sup>2</sup> Upper division course.

BCOE Notes:

**Advisement:**

- **It is highly recommended that all teacher candidates meet with an academic advisor every semester.**
- Freshmen, athletes, and students on warning and probation are **required** to meet with an advisor before registration.
- **At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services.** If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

**Important Notes:**

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_\_ ENGL 1550 \_\_\_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_\_\_ ENGL 2601 grade of "B" or better. **If you receive a "C" or below you will need to retake the course.**

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_\_\_ EDFN 1501 \_\_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ HEPE 2628

If student does not have a “B” average, student will be required to **retake one or more of these courses until the “B” average is achieved.**

- A grade of “C” or better is required in all required major courses. Courses taken as “CR/NC” will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

#### Upper-Division Application Process

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the “+” symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

#### Program Notes:

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

#### Preclinical Application with Request for Graduation Evaluation

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

#### Student Teaching:

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

#### Graduation Process:

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

#### Completing a Bachelor of Science in Education without Licensure:

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
ENGL 1550	Writing 1	3
FNUT 1551	Normal Nutrition	3
CMST 1545	Communication Foundations	3
PSYC 1560	General Psychology	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
HEPE 1575	Performance and Analysis of Net and Wall Games	3
HEPE 1579	Rhythmic Movement for Children	1
PHLT 1568	Healthy Lifestyles	3
EDFN 1501	Introduction to Education	3
ENGL 1551	Writing 2	3
PSYC 2692	Human Sexuality (GER Elective)	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
BIOL 1545	Allied Health Anatomy and Physiology (Natural Sciences GER)	5
HEPE 2628	Movement for Early Childhood	3
HEPE 1567	Performance and Analysis of Invasion Games	3
HEPE 1574	Performance and Analysis of Target and Fielding Games	3
HEPE 2610	Introduction to Outdoor Pursuits	3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
HEPE 3750	Organization and Management of Sport Programs and Events	2
HEPE 2689	Scientific Basis of Fitness	3
SPED 2630	Individuals with Exceptionalities in Society	3

HEPE 3768	Advocacy and Best Practices in Health and Physical Education	2
Math GER Requirement		3
Social Science GER Requirement		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
PSYC 3709	Psychology of Education	3
HEPE 3740	Coaching the Young Athlete	3
HEPE 3767	Pedagogy in P-12 Health Education and Physical Education	3
TERG 3710	Reading Application in Content Areas, Middle Years	3
HEPE 4889	Selected Topics in Health and Physical Education	2
Arts and Humanities GER Requirement		3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
HEPE 3766	Principles and Analysis of Motor Development (This course is changing to 4 s.h.)	3
HEPE 4876	Teaching of Elementary Physical Education <sup>1</sup>	3
HEPE 4895	Introduction to Adapted Physical Education	4
PHIL 2625	Introduction to Professional Ethics	3
EDFN 3708	Education and Society	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
HEPE 4899	Physiological Effects of Exercise on Children and Adolescents	3
HEPE 3780	Methods of Teaching Dance	2
HEPE 4878	Teaching of Middle/Secondary Physical Education	3
Natural Science GER		3
HEPE 4808	Standards Based Assessment in Health and Physical Education	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
SED 4846	Supervised Student Teaching: Physical Education (K-12)	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>123</b>

<sup>1</sup> Courses must be taken concurrently if the student is majoring in both health and physical education

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.

- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

## Bachelor of Science in Education in Spanish (PK-12) - Multi-Age License

Dr. Jennifer Behney, Program Coordinator

### Multi-Age Education (PK-12) Spanish

#### OVERVIEW

The program in Spanish Education prepares students to become a teacher of foreign language at the high school, middle school, and elementary school levels in the state of Ohio. Graduates are fully licensed to teach Spanish in Ohio (Multi-age PK-12 Licensure) and are fully prepared in their knowledge of the target language, of best practices and standards in general pedagogy, and of specific Second Language Acquisition (SLA) theories and foreign language education techniques. Students enter student teaching in the last semester of study with a level of Advanced Low in both oral and written communication in the target language, as measured by the Oral Proficiency Interview (OPI) and the Writing Proficiency Test (WPT) and as required by the American Council on the Teaching of Foreign Languages (ACTFL).

The Multi-Age Spanish License, Grades PK-12, Bachelor of Science in Education degree requires a minimum of 123 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

### Field Experiences and Student Teaching

Students complete over 120 hours of pre-clinical experiences in addition to student teaching. Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years

## Pre-clinical Field Experiences

The pre-clinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Spanish Education pre-clinical experience is scheduled during the fall semester. Applications for the pre-clinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the pre-clinical experience. Contact the Beeghly College of Education academic advisors for minimum pre-clinical prerequisites.

- FNLG 4801 Methods of Foreign Language Teaching
- SED 3706 Principles of Teaching Adolescents
- EDFN 3710 Educational Assessment

## Student Teaching

- SED 4827 Supervised Student Teaching: Language (K-12)
- SED 4842A Student Teaching Seminar for Secondary Education

Students complete a 16-week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

## Advisement

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a pre-clinical experience.

## Required Assessments

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

004 Assessment of Professional Knowledge: Multi-Age (PK-12)

ACTFL Oral Proficiency Interview

Writing Proficiency Test

These exams are administered by Language Testing International/ACTFL.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
<b>Core Competencies</b>		
ENGL 1550	Writing 1	12
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
<b>Mathematics Requirement</b>		
One of the following courses may be taken to fulfill Math GER:		
Math 2652 is preferred math course if you are required to take Math Praxis Core		
MATH 2623	Quantitative Reasoning	6
or MATH 2652	Mathematics for Early Childhood Teachers 2	
or PHIL 2619	Introduction to Logic	
or STAT 2601	Introductory Statistics	
<b>Arts and Humanities</b>		
Natural Sciences (2 courses 1 lab)		7
Social Science		6

PSYC 1560	General Psychology	
<b>Social Science GER</b>		
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
<b>Subject Area Curriculum</b>		
SPAN 2600	Intermediate Spanish (A student who starts with SPAN 2605, may take SPAN 2600 Credit by Examination)	4
SPAN 2605	Advanced Intermediate Spanish	3
SPAN 3702	Intensive Spanish Review	3
SPAN 3724	Spanish Pronunciation	3
SPAN 3735	Advanced Spanish Grammar and Composition	3
SPAN 3736	Introduction to Spanish Linguistics	3
SPAN 3755	Advanced Spanish Conversation	3
SPAN 4880	Spanish Conversation and Composition Capstone	3
FNLG 4899	Professional Development for Teachers	1
ENGL 4851	Language Acquisition	3
Five of the following courses:		15
SPAN 3740	Business Spanish	3
SPAN 3758	Culture and Literature of Spanish-Speaking Groups in the United States	
SPAN 3762	Culture: Spain	3
SPAN 3763	Introduction to Literature: Spain	
SPAN 3766	Culture: Spanish-America	3
SPAN 3767	Introduction to Literature: Spanish-America	
<b>Professional Education Curriculum</b>		
SED 3706	Principles of Teaching Adolescents <sup>2</sup>	3
EDFN 1501	Introduction to Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
EDFN 3708	Education and Society	3
PSYC 3709	Psychology of Education	3
TERG 3711	Reading Application in Content Areas, Secondary Years <sup>2</sup>	3
<b>Preclinical Curriculum</b>		
FNLG 4801	Methods of Foreign Language Teaching	3
EDFN 3710	Educational Assessment	3
<b>Student Teaching Curriculum</b>		
SED 4827	Supervised Student Teaching: Language (K-12) <sup>2</sup>	10
SED 4842A	Student Teaching Seminar for Secondary Education <sup>2</sup>	2
<b>Total Semester Hours</b>		<b>120</b>

<sup>1</sup> Prerequisites for preclinical curriculum

<sup>2</sup> Upper Division Courses

**BCOE Notes:****Advisement:**

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are **required** to meet with an advisor before registration.
- **At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the**

Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

#### Important Notes:

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_\_ ENGL 2601 grade of "B" or better. **If you receive a "C" or below you will need to retake the course.**

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ SPAN 2605

If student does not have a "B" average, student will be required to **retake one or more of these courses until the "B" average is achieved.**

- A grade of "C" or better is required in all required major courses. Courses taken as "CR/NC" will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

#### Upper-Division Application Process

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall

- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the "+" symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

#### Program Notes:

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

#### Preclinical Application with Request for Graduation Evaluation

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

#### Student Teaching:

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a "C" (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

#### Graduation Process:

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

#### Completing a Bachelor of Science in Education without Licensure:

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.		
			SPAN 37XX <sup>1</sup>	3
			<b>Semester Hours</b>	<b>16</b>
<b>Year 4</b>				
<b>Fall</b>				
SPAN 2600	Intermediate Spanish	4	SPAN 4880	Spanish Conversation and Composition
ENGL 1550	Writing 1 (GER requirement)	3		Capstone
MATH 2623	Quantitative Reasoning(GER requirement)	3	FNLG 4801	Methods of Foreign Language Teaching
Or:			SPAN 37XX <sup>1</sup>	3
MATH 2652	Mathematics for Early Childhood Teachers 2		EDFN 3710	Educational Assessment
Or:			SPAN 37XX <sup>1</sup>	3
PHIL 2619	Introduction to Logic		<b>Semester Hours</b>	<b>15</b>
Or:			<b>Spring</b>	
STAT 2601	Introductory Statistics		SED 4827	Supervised Student Teaching: Language (K-12)
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE (GER Elective)	3	SED 4842A	Student Teaching Seminar for Secondary Education
Social Science GER		3	<b>Semester Hours</b>	<b>12</b>
<b>Semester Hours</b>		<b>16</b>	<b>Total Semester Hours</b>	<b>120</b>
<b>Spring</b>				
SPAN 2605	Advanced Intermediate Spanish	3	<sup>1</sup> Each semester, two of the following courses will be offered: SPAN 3724, SPAN 3735, SPAN 3736, SPAN 3755, SPAN 3740, SPAN 3758, SPAN 3762, SPAN 3763, SPAN 3766, SPAN 3767	
ENGL 1551	Writing 2 (GER requirement)	3	Notes:	
CMST 1545	Communication Foundations (GER requirement)	3	1. Prior to student teaching, students must achieve a level of Advanced Low on the Oral Proficiency Interview and on the Writing Proficiency Test, both administered by the American Council on the Teaching of Foreign Languages.	
PSYC 1560	General Psychology (Social Science GER)	3	2. Students who change from the B.S. in Spanish Education to the B.A. in Spanish will need to complete a minor and, in addition to coursework in the Spanish major, will need 20 hours at the 3700 level or higher.	
Arts and Humanities GER		3	<b>Learning Outcomes</b>	
<b>Semester Hours</b>		<b>15</b>	<ul style="list-style-type: none"> <li>• Cultural Understanding – The student will develop an understanding and appreciation of the history and culture of those areas in which the target language is spoken.</li> <li>• Reading Comprehension – The student will be able to read and understand a variety of materials written in the target language. These materials may include but are not limited to: novels, plays, poetry, newspaper and magazine articles, and private correspondence (e.g., business communications).</li> <li>• Listening Comprehension – The student will be able to understand the target language when spoken in a variety of contexts. These contexts may include but are not limited to: conversation with another individual or individuals, formal lectures, song, and film.</li> <li>• Oral Expression – The student will be able to carry on a conversation and deliver a speech in the target language. The student will achieve a level of Advanced Low on the Oral Proficiency Interview administered by the American Council on the Teaching of Foreign Languages.</li> <li>• Written Expression – The student will be able to compose in the target language a variety of written documents. These documents may include but are not limited to: formal and casual correspondence, essays, and creative works. The student will achieve a level of Advanced Low on the Writing Proficiency Test administered by the American Council on the Teaching of Foreign Languages.</li> </ul>	
<b>Year 2</b>				
<b>Fall</b>				
SPAN 3702	Intensive Spanish Review	3		
EDFN 1501	Introduction to Education	3		
Natural Sciences + Lab GER		4		
Social and Personal Awareness GER		3		
Arts and Humanities GER		3		
<b>Semester Hours</b>		<b>16</b>		
<b>Spring</b>				
SPED 2630	Individuals with Exceptionalities in Society	3		
Social and Personal Awareness GER		3		
Natural Science GER		3		
SPAN 37XX <sup>1</sup>		3		
SPAN 37XX <sup>1</sup>		3		
<b>Semester Hours</b>		<b>15</b>		
<b>Year 3</b>				
<b>Fall</b>				
PSYC 3709	Psychology of Education	3		
EDFN 3708	Education and Society	3		
ENGL 4851	Language Acquisition	3		
SPAN 37XX <sup>1</sup>		3		
SPAN 37XX <sup>1</sup>		3		
<b>Semester Hours</b>		<b>15</b>		
<b>Spring</b>				
FNLG 4899	Professional Development for Teachers	1		
SED 3706	Principles of Teaching Adolescents	3		
TERG 3711	Reading Application in Content Areas, Secondary Years	3		
SPAN 37XX <sup>1</sup>		3		
SPAN 37XX <sup>1</sup>		3		

## Bachelor of Science in Education in Visual Arts (PK-12) - Multi-Age License

Dr. Samuel Adu-Poku, Program Coordinator

## Multi-Age Education (PK-12)

### Visual Arts

#### OVERVIEW

The B.S. in Education Visual Arts, Pre-K-12 degree program is offered in collaboration with the Department of Art, CCAC and the Department of Teacher Education, BCOE. Art Education students are first and foremost artists who want to teach. They are dedicated to becoming lifelong learners, artists, researchers, and teachers. Prospective art teachers are leaders and advocates for the arts in schools, museums, community centers and other settings while also caring about students with diverse abilities, their learning, and nurturing their love of visual art. This program nurtures professional teaching skills along with creative and intellectual growth. Students work with art education faculty with diverse set of research interests ranging from the use of digital technology in the classroom, art curriculum and instruction, to international studies and multicultural art education. Small class sizes and hands-on field teaching experiences effectively prepare students to enter the profession of teaching.

The Multi-Age Visual Arts License, Grades PK-12, Bachelor of Science in Education degree requires a minimum of 135 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

#### Employment Opportunities

Graduates of the Art Education program will be qualified to teach in the PK-12 Art Education classroom. Graduates find rewarding and meaningful employment in public and private schools, community centers, museums and galleries.

#### Field Experiences and Student Teaching

Students complete over 300 hours of pre-clinical experiences in addition to student teaching. Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

##### Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 2610 Reading Application in Content Areas Middle Years

##### Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Art Education preclinical experience is scheduled during over two semesters. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the fall preclinical experience and February 1 for the spring preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- ART 3737 Pre-K-4, Visual Arts Education
- ART 4837 Professional Practices in Middle School
- ART 4838 Professional Practices in Secondary School

##### Student Teaching

- SED 4843 Supervised Student Teaching: Art (K-12)
- SED 4842A Student Teaching Seminar for Secondary Education

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

#### Advisement

Advisement is provided by the academic advisors in the Beeghly College of Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

#### Required Assessments

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

004 Assessment of Professional Knowledge: Multi-Age (PK-12)

006 Art

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
<b>Mathematics Requirement</b>		
One of the following courses may be taken to fulfill Math GER:		
Math 2652 is preferred math course if you are required to take Math Praxis Core		
MATH 2623	Quantitative Reasoning	
Or:		
MATH 2652	Mathematics for Early Childhood Teachers 2	
Or:		
PHIL 2619	Introduction to Logic	
Or:		
STAT 2601	Introductory Statistics	
Arts and Humanities		6
ART 1541	Survey of Art History 1	
ART 1542	Survey of Art History 2	
Natural Sciences (2 courses, 1 lab)		7
Social Science		6
PSYC 1560	General Psychology	
Social Science GER		
Social and Personal Awareness		6
General Education Elective		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
<b>Subject Area Curriculum</b>		
ART 1501	Fundamentals of 2D Design	3
ART 1502	Fundamentals of 3D Design	3
ART 1503	Foundation Portfolio Review <sup>1</sup>	1
ART 1521	Foundation Drawing	3
ART 1522	Intermediate Drawing	3
ART 2611	Introduction to Sculpture	3
ART 2615	Introduction to Metals	3
ART 2631	Introduction to Ceramics	3



ART 2650	Introduction to Painting	3
ART 2653	Watercolor	3
ART 2661	Introduction to Graphic Design	3
ART 2674	Introduction to Photography	3
ART 2691	Introduction to Digital Media	3
ART 3721	Expressive Drawing	3
ART 3737	Pre-K-4, Visual Arts Education	3
ART 3788	Theory of Art	3
ART 4837	Professional Practices in Middle School	3
ART 4838	Professional Practices in Secondary School	3
ART 5882	Twentieth Century Art from 1960	3
Select one of the following Art elective courses:		3
ART 2625	Introduction to Printmaking: Intaglio and Relief	
ART 2626	Introduction to Printmaking: Lithography and Screenprinting	
Select one of the following Art History elective courses:		3
ART 3741	Topics in Medieval Art	
ART 3742	Topics in Renaissance Art	
ART 3746	Nineteenth Century American Art	
ART 3782	Topics in Pre-Columbian Art	
ART 3783	History and Theory of Graphic Design	
ART 4880	Special Topics in Art History	
Professional Education Curriculum		
EDFN 1501	Introduction to Education	3
EDFN 3708	Education and Society	3
SPED 2630	Individuals with Exceptionalities in Society <sup>2</sup>	3
PSYC 3709	Psychology of Education	3
Student Teaching Curriculum		
TERG 2610	Reading Application in Content Areas Middle Years	3
SED 4843	Supervised Student Teaching: Art (K-12) <sup>3</sup>	10
SED 4842A	Student Teaching Seminar for Secondary Education <sup>3</sup>	2
ART 4839	Seminar in Art Education (with student teaching) <sup>3</sup>	1
<b>Total Semester Hours</b>		<b>129</b>

<sup>1</sup> All students must complete and pass this review to take additional studio classes.

<sup>2</sup> Prerequisite for preclinical courses

<sup>3</sup> Upper Division Course

#### BCOE Notes:

#### Advisement:

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are required to meet with an advisor before registration.
- At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

#### Important Notes:

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**

- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.

- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_\_ ENGL 2601 grade of "B" or better. **If you receive a "C" or below you will need to retake the course.**

- "B" average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ ART 1541 or ART 1542

If student does not have a "B" average, student will be required to **retake one or more of these courses until the "B" average is achieved.**

- A grade of "C" or better is required in all required major courses. Courses taken as "CR/NC" will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

#### Upper-Division Application Process

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the "+" symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

**Program Notes:**

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

**Preclinical Application with Request for Graduation Evaluation**

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

**Student Teaching:**

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

**Graduation Process:**

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

**Completing a Bachelor of Science in Education without Licensure:**

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
ENGL 1550	Writing 1	3
EDFN 1501	Introduction to Education	3
MATH 2623	Quantitative Reasoning	3

TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
ART 1502	Fundamentals of 3D Design	3
ART 1522	Intermediate Drawing	3
ENGL 1551	Writing 2	3
PSYC 1560	General Psychology	3
ART 1503	Foundation Portfolio Review	1
Natural Science/Lab GER		4
<b>Semester Hours</b>		<b>17</b>
<b>Year 2</b>		
<b>Fall</b>		
ART 2615	Introduction to Metals	3
ART 3721	Expressive Drawing	3
ART 1541	Survey of Art History 1	3
CMST 1545	Communication Foundations	3
Natural Science GER		3
Social and Personal Awareness GER		3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
ART 2653	Watercolor	3
ART 1542	Survey of Art History 2	3
SPED 2630	Individuals with Exceptionalities in Society (Field Experience) <sup>1</sup>	3
ART Breadth Course <sup>3</sup>		3
Social Science GER		3
Social and Personal Awareness GER		3
Request for Graduation Evaluation is completed online, printed and submitted to the BCOE Office of Student Services, room 2101, with the preclinical application.		
<b>Semester Hours</b>		<b>18</b>
<b>Year 3</b>		
<b>Fall</b>		
ART 3737	Pre-K-4, Visual Arts Education (Field Experience)	3
EDFN 3708	Education and Society	3
PSYC 3709	Psychology of Education	3
ART Breadth Course <sup>3</sup>		3
TERG 2610	Reading Application in Content Areas Middle Years	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ART 4837	Professional Practices in Middle School	3
ART 3788	Theory of Art	3
ART 5882	Twentieth Century Art from 1960	3
ART Breadth Course <sup>3</sup>		3
ART Breadth Course <sup>3</sup>		3
ART Breadth Course <sup>3</sup>		3
<b>Semester Hours</b>		<b>18</b>
<b>Year 4</b>		
<b>Fall</b>		
ART 4838	Professional Practices in Secondary School	3
Art History Elective <sup>4</sup>		3
ART Breadth Course <sup>3</sup>		3

ART Breadth Course <sup>3</sup>	3
<b>Semester Hours</b>	<b>12</b>
<b>Spring</b>	
ART 4839 Seminar in Art Education	1
SED 4843 Supervised Student Teaching: Art (K-12) (Field Experience)	10
SED 4842A Student Teaching Seminar for Secondary Education	2
<b>Semester Hours</b>	<b>13</b>
<b>Total Semester Hours</b>	<b>129</b>

1 Prerequisite for preclinical curriculum

2 Upper Division Course

3 Based on semester offerings, choose one of the following required course offerings: Art 2611, ART 2631, ART 2650, ART 2661, ART 2674, ART 2691; OR choose one of the following Art Electives: Art 2625, or ART 2626

4 Based on semester offerings, choose from one of the following Art History Electives: ART 3741, ART 3742, ART 3746, ART 3782, ART 3783, or ART 4880

## Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

## Endorsements

### Adapted Physical Education (Grades K-12)

The Department of Teacher Education offers the Adapted Physical Education Endorsement. This endorsement is approved by the State of Ohio and offered online in collaboration with Otterbein University. This endorsement may be added to an existing P-12 Physical Education teaching license. This endorsement allows a person with a P-12 Physical Education license to teach Adapted Physical Education in the K-12 classroom. This is not a major and does not stand alone as an area of study.

16 s.h. of required coursework in addition to HEPE 4895 Adapted Physical Education (taken as a degree requirement)

PHED 5000 Sport and Recreation for Individuals with Disabilities

University: Otterbein University

Credit Hours: 4.0

COURSE PREREQUISITE: PHED 3600 or instructor permission

CATALOG DESCRIPTION:

This course is designed to investigate recreation and sports organizations that serve individuals with disabilities as well as the practical application of principles underlying the provision of services. The course will focus on individual populations and the respective barriers to participation, the process of program planning and resources development that alter these limitations, and the practical experience of application of a particular plan. Topics to be explored include the role of the United States Olympic Committee, Committee on Sports for the Disabled, classification of athletes for competition, role of the National Governing Bodies in promoting sports, and ways people with disabilities can access sports & non-competitive opportunities. Attention will also be devoted to a study of successful community and institutional programs.

PHED 5500 Adapted Physical Education Assessment & Program Planning

University: Otterbein University

Credit Hours: 4.0

COURSE PREREQUISITE: PHED 3600 or instructor permission

CATALOG DESCRIPTION:

Focus will be on assessment and program planning for students in a Physical Education Setting. Students will be exposed to principles for adapting both curriculum and equipment in the physical education environment to meet the diverse needs of learners in inclusive and exclusive learning environments. This course will require practical experiences with students in a physical activity setting including assessment and application of the latest assessment instruments for students with and without identified disabilities.

PHED 6000 Field Experience and Seminar in Adapted Physical Education

University: Otterbein University

Credit Hours: 3.0

COURSE PREREQUISITES: PHED 5000 and PHED 5500

COURSE COREQUISITE: PHED 6500 or instructor permission

CATALOG DESCRIPTION:

This course is designed to provide students the opportunity to explore the field in depth. Focus will be on examination of issues in Adapted Physical Education as they relate to physical and motor performance behavior of children with disabilities. This course will primarily be designed around case

study discussion, research literature and analysis of program-related field observations.

PHED 6500 Field Experience and Seminar in Adapted Physical Education Lab (Otterbein) or HPES 6990 Independent Study (Youngstown State University)

**University:** The field experience is offered at both universities

**Credit Hours:** 1.0

**COURSE PREREQUISITES:** PHED 5000 and PHED 5500

**COURSE COREQUISITE:** PHED 6000 or instructor permission

**CATALOG DESCRIPTION:**

**COURSE DESCRIPTION:** The course is designed to provide the student with experience with children who have a variety of physical, cognitive, sensory, and emotional needs in the physical education environment.

## Early Childhood Generalist (Grades 4-5)

The Department of Teacher Education offers the Early Childhood Generalist (Grades 4-5) endorsement. This endorsement is approved by the State of Ohio and offered online. This endorsement may be added to an existing Early Childhood Education (P-3) license, for teaching grades 4-5 in Math, Science, Social Studies, and Language Arts. This is not a major and does not stand alone as an area of study.

Offered summer semesters, through web-based instruction. A 45-hour field experience is required. Passage of the OAE 018 (subtest 1) and 019 (subtest 2) examinations are required.

EMCE 5811 Early Childhood Generalist: Math and Science

EMCE 5812 Integrated Language Arts and Social Studies for 4th and 5th Grades

EMCE 5854 Middle School Theory and Practice

## Middle Childhood Generalist (Grades 4-5)

The Department of Teacher Education offers the Middle Childhood Generalist Endorsement. This endorsement is approved by the State of Ohio and may be added to an existing Middle Childhood License. An endorsement to teach grades 4 – 6 in one or more additional areas can be added to a present Middle Childhood License. This endorsement also requires the passage of the OAE Elementary Education subtest 1 – 018 with a passing score of 220 or higher & subtest 2 – 019 with a passing score of 220 or higher or the respective content area test.

Approved English Courses

ENGL 3704 Literature for Middle School Readers

ENGL 3739 Writing for Middle School Teachers

Score of 220 on the OAE Middle Grades Language Arts (028).

Approved Mathematics Courses

MATH 1564 Foundations of Middle School Mathematics 1

MATH 2665 Foundations of Middle School Mathematics 2

Score of 220 on the OAE Middle Grades Math test (030).

Approved Science Courses

GEOL 1504 The Dynamic Earth

PHYS 2607 Physical Science for Middle and Secondary Education

Score of 220 on the OAE Middle Grades Science test (029).

## Reading Endorsement (K-12)

The Department of Teacher Education offers the Reading Endorsement (Grades K-12). This endorsement is approved by the State of Ohio and can be added to any standard teaching license or certificate. This endorsement also requires the passage of OAE (Ohio Assessments for Educators) Reading – Sub test I (038) passing score of 220 or higher; and OAE Reading - Sub test II (039) passing score of 220 or higher. Candidates must purchase a TaskStream account.

TERG 6923 Literacy and Phonics Instruction: Early Years

TERG 6924 Content Literacy Young Adolescent to Adult

TERG 6926 Reading and Language Arts Assessment 1

TERG 6927 Practicum: Coaching for Effective Literacy Instruction

TERG 6928 Practicum: Case Study in Reading and Language Arts

## TESOL (Teaching English to Speakers of Other Languages) (Grades K-12)

The Department of Teacher Education offers the Teaching English to Speakers of Other Languages (TESOL) Endorsement in cooperation with the Department of English and can be added to any Teacher Education license. This endorsement also requires the passage of OAE (Ohio Assessments for Educators) #21 English to Speakers of Other Languages, passing score of 220 or higher. The 18 s.h. of required coursework includes:

ENGL 2651 Introduction to Language

Or:

ENGL 3755 Principles of Linguistic Study

ENGL 4850 Sociolinguistics

ENGL 4851 Language Acquisition

ENGL 4852 Linguistics and Literacy

ENGL 4856 TESOL Methods

ENGL 4857 TESOL Practicum

## Bachelor of Science in Education in Special Education: Mild/Moderate Licensure

### Introduction

Candidates of the program are prepared for careers as intervention specialists who provide enhanced social skills of those with a disability, reinforcement-based behavioral interventions, inclusion strategies, and assistive technology to individuals with exceptionalities. Each of our degree programs prepares candidates to successfully pass the Ohio licensure exam which will result in the corresponding Intervention Specialist Licensure. The YSU student chapter of Council for Exceptional Children (CEC) participates in multiple college, university, and community events to advocate for individuals with exceptional learning needs.

### Welcome

Our Special Education (Mild-Moderate Licensure) program is designed to prepare graduates with the knowledge, skills, and dispositions to best serve in schools and agencies in the area. Our Special Education program seeks

to meet the educational and service needs of Northeast Ohio and Western Pennsylvania. Our program is exemplified by the quality and diversity of classroom instruction, field experiences, program options, student, faculty, and graduates in the community. YSU has a long history of producing accomplished graduates who have served the area as Special Education teachers, Intervention Specialists, and Special Education Professionals. We have a strong connection with our alumni, program supervisors, schools and agencies, and others who support students with exceptional learning needs in the Youngstown area.

Undergraduate candidates will find a unique educational experience that prepares them for employment and/or advanced study in Special Education. For more information, review our website and contact Special Education faculty with any questions.

Marcia J. Matanin, Ph.D.  
 Department Chairperson / Professor  
 2405 Beeghly College of Education  
 (330) 941-3251  
 mjmatanin@ysu.edu (jjprotivnak@ysu.edu)

## Program Director

For specific questions about the Intervention Specialist (Mild/Moderate) Licensure Option in Special Education program, please contact the program director.

## Intervention Specialist License (K-12)

The Intervention Specialist program requires a minimum of 121 s.h. The BS in Education degree requires the courses listed on the curriculum sheet. Licensure also requires passing the Ohio Assessments for Educators Exams prior to student teaching.

COURSE	TITLE	S.H.
<b>General Education Requirements</b> 13		
Core Competencies		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
MATH 2665	Foundations of Middle School Mathematics 2	
CMST 1545	Communication Foundations	
<b>Arts and Humanities</b> 6		
MUHL 2621	Music Literature and Appreciation	
General Education Elective		
<b>Natural Sciences</b> 7		
Science Elective		
Science Elective + Lab		
Social Science 6		
PSYC 1560	General Psychology	
HIST 2605	Turning Points in United States History 1	
or HIST 2606	Turning Points in United States History 2	
<b>Social and Personal Awareness</b> 6		
COUN 1587	Introduction to Health and Wellness in Contemporary Society	
PSYC 3758	Lifespan Development	
<b>General Education Elective</b> 3		
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
<b>Subject Area Curriculum</b>		
ENGL 2651	Introduction to Language	3
ENGL 3703	Literature for Young Children	3
OR ENGL 3704 Literature Middle School Readers		

<b>OR ENGL 3705 Young Adult Literature</b>		
MATH 1564	Foundations of Middle School Mathematics 1	4
SPED 3715	Characteristics and Needs of Children and Youth with Mild/Moderate Disabilities	3
SPED 5828	Education for Children and Youth with Emotional and Behavior Needs	4
SPED 5853	Diagnosis and Intervention in Mathematics for Special Education	3
SPED 5866	Assessment and Referral of Exceptional Children and Youth for the Intervention Specialist	3
SPED 5867	Intervention and Remediation of Receptive/Expressive Language Dysfunction	3
SPED 5868	Mild/Moderate Disabilities Practicum (Professional Education Curriculum)	4

<b>Professional Education Curriculum</b>		
EDFN 1501	Introduction to Education	3
EDFN 3708	Education and Society	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society	3
TERG 2610	Reading Application in Content Areas Middle Years	3
TERG 3701	Phonics in Reading Instruction	3
TERG 3702	Developmental Reading Instruction	3
TERG 3703	Assessment and Instruction in Reading	3

<b>Preclinical Curriculum</b>		
SPED 4854	Cross-Curricular Interventions	4
SPED 5835	Classroom Management for Exceptional Children and Youth	4
SPED 5851	Transition Planning, Social Skill Development and Health-Related Issues	3
SPED 5864	Service Coordination, Collaboration, and Consultation for Students with Special Needs	3

<b>Student Teaching</b> 12		
SPED 4849	Supervised Student Teaching: Mild Moderate/Disabilities	
SPED 4869	Student Teaching Seminar for Special Education	

**Total Semester Hours** 121

BCOE Notes:

**Advisement:**

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are required to meet with an advisor before registration.
- At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

**Important Notes:**

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.

- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- “B” average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ ENGL 1551

If failure to meet “B” average above must also complete:

\_\_\_\_ ENGL 2601 grade of “B” or better. **If you receive a “C” or below you will need to retake the course.**

- “B” average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ SPED 3715

If student does not have a “B” average, student will be required to **retake one or more of these courses until the “B” average is achieved.**

- A grade of “C” or better is required in all required major courses. Courses taken as “CR/NC” will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

**Upper-Division Application Process**

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the “+” symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

**Program Notes:**

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social

Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.

- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

**Preclinical Application with Request for Graduation Evaluation**

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

**Student Teaching:**

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

**Graduation Process:**

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

**Completing a Bachelor of Science in Education without Licensure:**

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
EDFN 1501	Introduction to Education	3
	Natural Science with Lab	4
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
MATH 1564	Foundations of Middle School Mathematics 1	4
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3

Natural Science Elective	3
PSYC 1560 General Psychology	3
MATH 2665 Foundations of Middle School Mathematics 2	4
<b>Semester Hours</b>	<b>16</b>

**Year 2**

**Fall**

SPED 2630 Individuals with Exceptionalities in Society	3
HIST 2605 Turning Points in United States History 1 or HIST 2606 or Turning Points in United States History 2	3
MUHL 2621 Music Literature and Appreciation	3
TERG 2610 Reading Application in Content Areas Middle Years	3
PSYC 3758 Lifespan Development	3
<b>Semester Hours</b>	<b>15</b>

**Spring**

SPED 3715 Characteristics and Needs of Children and Youth with Mild/Moderate Disabilities	3
COUN 1587 Introduction to Health and Wellness in Contemporary Society	3
ENGL 2651 Introduction to Language	3
PSYC 3709 Psychology of Education	3
TERG 3701 Phonics in Reading Instruction	3
ENGL 3703 Literature for Young Children or ENGL 3704 or Literature for Middle School Readers or ENGL 3705 or Young Adult Literature	3
<b>Semester Hours</b>	<b>18</b>

**Year 3**

**Fall**

EDFN 3708 Education and Society	3
SPED 5828 Education for Children and Youth with Emotional and Behavior Needs	4
SPED 5866 Assessment and Referral of Exceptional Children and Youth for the Intervention Specialist	3
SPED 5867 Intervention and Remediation of Receptive/ Expressive Language Dysfunction	3
TERG 3702 Developmental Reading Instruction	3
<b>Semester Hours</b>	<b>16</b>

**Spring**

SPED 5853 Diagnosis and Intervention in Mathematics for Special Education	3
SPED 5868 Mild/Moderate Disabilities Practicum	4
TERG 3703 Assessment and Instruction in Reading	3
Arts & Humanities Elective	3
<b>Semester Hours</b>	<b>13</b>

**Year 4**

**Fall**

SPED 5851 Transition Planning, Social Skill Development and Health-Related Issues	3
SPED 4854 Cross-Curricular Interventions	4
SPED 5835 Classroom Management for Exceptional Children and Youth	4
SPED 5864 Service Coordination, Collaboration, and Consultation for Students with Special Needs	3
<b>Semester Hours</b>	<b>14</b>

**Spring**

SPED 4849 Supervised Student Teaching: Mild Moderate/ Disabilities	10
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SPED 4869 Student Teaching Seminar for Special Education	2
<b>Semester Hours</b>	<b>12</b>
<b>Total Semester Hours</b>	<b>121</b>

The Learning Outcomes for this program align with the seven Standards of the Council for Exceptional Children (CEC):

- Candidates will analyze learners to determine unique needs using the principles and theories of human development.
- Candidates will prioritize areas of the general curriculum and accommodations for individuals with exceptional learning needs.
- Candidates will individualize instruction to meet the unique learning, communication, social and behavior needs of students with exceptional learning needs.
- Candidates will develop and use appropriate technology adaptations for all individuals with exceptional learning needs.
- Candidates will demonstrate reinforcement-based classroom management interventions with students with exceptional learning needs.
- Candidates will evaluate the progress of students with exceptional learning needs on their IEP goals to inform the adjustment of learning and behavior plans

# Bachelor of Science in Education in Special Education: Moderate/Intensive Licensure

## Introduction

Candidates of the program are prepared for careers as intervention specialists who provide enhanced social skills of those with a disability, reinforcement-based behavioral interventions, inclusion strategies, and assistive technology to individuals with exceptionalities. Each of our degree programs prepares candidates to successfully pass the Ohio licensure exam which will result in the corresponding Intervention Specialist Licensure. The YSU student chapter of Council for Exceptional Children (CEC) participates in multiple college, university, and community events to advocate for individuals with exceptional learning needs.

## Welcome

Our Special Education (Moderate-Intensive Licensure) program is designed to prepare graduates with the knowledge, skills, and dispositions to best serve in schools and agencies in the area. Our Special Education program seeks to meet the educational and service needs of Northeast Ohio and Western Pennsylvania. Our program is exemplified by the quality and diversity of classroom instruction, field experiences, program options, student, faculty, and graduates in the community. YSU has a long history of producing accomplished graduates who have served the area as Special Education teachers, Intervention Specialists, and Special Education Professionals. We have a strong connection with our alumni, program supervisors, schools and agencies, and others who support students with exceptional learning needs in the Youngstown area.

Undergraduate candidates will find a unique educational experience that prepares them for employment and/or advanced study in Special Education. For more information, review our website and contact Special Education faculty with any questions.

Marcia J. Matanin, Ph.D.  
 Department Chairperson / Professor  
 2405 Beeghly College of Education  
 (330) 941-3251  
[mjmatanin@ysu.edu](mailto:mjmatanin@ysu.edu) ([jjprotivnak@ysu.edu](mailto:jjprotivnak@ysu.edu))

## Program Director

For specific questions about the Intervention Specialist (Moderate/Intensive) Licensure Option in Special Education program, please contact the program director.

## Intervention Specialist License (K-12)

The Intervention Specialist program requires a minimum of 121 s.h. The BS in Ed degree requires the courses listed below. Licensure also requires passing the Ohio Assessments for Educators Exams prior to student teaching.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
MATH 2665	Foundations of Middle School Mathematics 2	4
<b>Arts and Humanities</b>		
MUHL 2621	Music Literature and Appreciation	3
AH Elective		3
<b>Natural Science</b>		
	Science Elective	7
	Science Elective + Lab	
<b>Social Science</b>		
PSYC 1560	General Psychology	3
HIST 2605	Turning Points in United States History 1	3
or HIST 2606	Turning Points in United States History 2	
<b>Social and Personal Awareness</b>		
COUN 1587	Introduction to Health and Wellness in Contemporary Society	3
PSYC 3758	Lifespan Development	3
<b>General Education Elective</b>		
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
<b>Subject Area Curriculum</b>		
ENGL 2651	Introduction to Language	3
MATH 1564	Foundations of Middle School Mathematics 1	4
SPED 3715	Characteristics and Needs of Children and Youth with Mild/Moderate Disabilities	3
SPED 5828	Education for Children and Youth with Emotional and Behavior Needs	4
SPED 5833	Characteristics and Needs of Exceptional Children and Youth with Moderate/Intensive Disabilities	3
SPED 5834	Educational Strategies and Methods for Children and Youth with Moderate/Intensive Disabilities	4
SPED 5852	Prog Development Instructional Strategies for Learners with Moderate to Intensive Except Learn Needs	3
SPED 5872	Assessment and Referral for Children and Youth with Exceptionalities for the Intervention Specialist	3
SPED 5873	Communication and Literacy Skills for Learners with Significant Disabilities	3
<b>Professional Education Curriculum</b>		
EDFN 1501	Introduction to Education	3
EDFN 3708	Education and Society	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society	3
TERG 2610	Reading Application in Content Areas Middle Years	3
TERG 3701	Phonics in Reading Instruction	3

TERG 3702	Developmental Reading Instruction	3
TERG 3703	Assessment and Instruction in Reading	3
<b>Preclinical curriculum</b>		
SPED 4854	Cross-Curricular Interventions	4
SPED 5835	Classroom Management for Exceptional Children and Youth	4
SPED 5851	Transition Planning, Social Skill Development and Health-Related Issues	3
SPED 5864	Service Coordination, Collaboration, and Consultation for Students with Special Needs	3
<b>Student Teaching</b>		
SPED 4839	Supervised Student Teaching: Moderate/Intensive Intervention Specialist	12
SPED 4869	Student Teaching Seminar for Special Education	
<b>Total Semester Hours</b>		<b>121</b>

BCOE Notes:

### Advisement:

- **It is highly recommended that all teacher candidates meet with an academic advisor every semester.**
- Freshmen, athletes, and students on warning and probation are **required** to meet with an advisor before registration.
- **At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below** will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

### Important Notes:

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_ Minimum completion of 50 SH

\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_ ENGL 1550 \_\_\_ ENGL 1551

If failure to meet "B" average above must also complete:

\_\_\_ ENGL 2601 grade of "B" or better. **If you receive a "C" or below you will need to retake the course.**



- “B” average or better (B-B-B, A-B-C) across the following:

\_\_\_\_ EDFN 1501 \_\_\_\_ CMST 1545

\_\_\_\_ SPED 2630 \_\_\_\_ SPED 3715

If student does not have a “B” average, student will be required to **retake one or more of these courses until the “B” average is achieved.**

- A grade of “C” or better is required in all required major courses. Courses taken as “CR/NC” will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

**Upper-Division Application Process**

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the “+” symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

**Program Notes:**

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

**Preclinical Application with Request for Graduation Evaluation**

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

**Student Teaching:**

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

**Graduation Process:**

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

**Completing a Bachelor of Science in Education without Licensure:**

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 1564	Foundations of Middle School Mathematics 1	4
EDFN 1501	Introduction to Education	3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
Natural Science with Lab		4
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
PSYC 1560	General Psychology	3
MATH 2665	Foundations of Middle School Mathematics 2	4
Natural Science Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
SPED 2630	Individuals with Exceptionalities in Society	3
MUHL 2621	Music Literature and Appreciation	3
HIST 2605	Turning Points in United States History 1	3
	or HIST 2606 or Turning Points in United States History 2	
TERG 2610	Reading Application in Content Areas Middle Years	3
PSYC 3758	Lifespan Development	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
SPED 3715	Characteristics and Needs of Children and Youth with Mild/Moderate Disabilities	3
COUN 1587	Introduction to Health and Wellness in Contemporary Society	3
ENGL 2651	Introduction to Language	3
PSYC 3709	Psychology of Education	3
TERG 3701	Phonics in Reading Instruction	3

AH Elective		3
<b>Semester Hours</b>		<b>18</b>
<b>Year 3</b>		
<b>Fall</b>		
EDFN 3708	Education and Society	3
SPED 5828	Education for Children and Youth with Emotional and Behavior Needs	4
SPED 5833	Characteristics and Needs of Exceptional Children and Youth with Moderate/Intensive Disabilities	3
SPED 5873	Communication and Literacy Skills for Learners with Significant Disabilities	3
TERG 3702	Developmental Reading Instruction	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
SPED 5834	Educational Strategies and Methods for Children and Youth with Moderate/Intensive Disabilities	4
SPED 5852	Prog Development Instructional Strategies for Learners with Moderate to Intensive Except Learn Needs	3
SPED 5872	Assessment and Referral for Children and Youth with Exceptionalities for the Intervention Specialist	3
TERG 3703	Assessment and Instruction in Reading	3
<b>Semester Hours</b>		<b>13</b>
<b>Year 4</b>		
<b>Fall</b>		
SPED 5851	Transition Planning, Social Skill Development and Health-Related Issues	3
SPED 4854	Cross-Curricular Interventions	4
SPED 5835	Classroom Management for Exceptional Children and Youth	4
SPED 5864	Service Coordination, Collaboration, and Consultation for Students with Special Needs	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
SPED 4869	Student Teaching Seminar for Special Education	2
SPED 4839	Supervised Student Teaching: Moderate/Intensive Intervention Specialist	10
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>121</b>

The Learning Outcomes for this program align with the seven Standards of the Council for Exceptional Children (CEC):

- Candidates will analyze learners to determine unique needs using the principles and theories of human development.
- Candidates will prioritize areas of the general curriculum and accommodations for individuals with exceptional learning needs.
- Candidates will individualize instruction to meet the unique learning, communication, social and behavior needs of students with exceptional learning needs.
- Candidates will develop and use appropriate technology adaptations for all individuals with exceptional learning needs.
- Candidates will demonstrate reinforcement-based classroom management interventions with students with exceptional learning needs.
- Candidates will evaluate the progress of students with exceptional learning needs on their IEP goals to inform the adjustment of learning and behavior plans

## The College of Creative Arts and Communication

*Phyllis M. Paul, Dean*

*Greg Moring, Associate Dean*

The College of Creative Arts and Communication consists of the following departments:

- Department of Art (<http://artdept.yсу.edu>)
- Department of Communication (<http://cms.yсу.edu/college-creative-arts-and-communication/communication/department-communication>)
- Dana School of Music (<http://www.yсу.edu/academics/college-creative-arts-and-communication/dana-school-of-music>)
- Department of Theater and Dance (<http://www.yсу.edu/academics/college-creative-arts-and-communication/theater-majors>)

The Department of Art is accredited by the National Association of Schools of Art and Design and the Dana School of Music is a member of the National Association of Schools of Music. The National Association of Schools of Theatre accredits the Department of Theater and Dance.

The degrees granted are the Bachelor of Arts (BA), Bachelor of Fine Arts (BFA), and Bachelor of Music (BM).

Majors are offered in:

- studio art
- art education (in conjunction with the Beeghly College of Education)
- applied music (performance)
- music education
- music history and literature
- music theory or composition
- communication studies
- telecommunication studies
- journalism
- theater
- musical theater
- dance management

The activities of the college are conducted primarily in Bliss Hall, which houses the administrative offices of the college as well as classrooms, studios, laboratories, and performance areas serving most of the curricular and co-curricular programs in art, communication, theater, and music. Additional activities are held in the John J. McDonough Museum of Art, The Butler Institute of American Art, Stambaugh Auditorium, Powers Auditorium, the Beecher Center, Meshel Hall, Maag Library, and Kilcawley Center.

The college holds as its major objective the highest quality of instruction, including pre-professional training in areas such as studio art, applied music, communication studies, telecommunication studies, theater and dance; the training of teachers<sup>1</sup>; and the offering of a wide variety of courses to non-majors from all areas of the University.

The major programs in the college constitute an excellent basis for a liberal education. Students not pursuing degrees in the College of Creative Arts and Communication are welcomed and encouraged to participate in special opportunities in art, music, communication, or theater and dance as a means of broadening and complementing their university experience.

Another important objective of the college is to provide the University community maximum opportunity for experiencing the creative arts.

<sup>1</sup> For the Institutional Report on the Quality of Teacher Preparation, Title II, Higher Education Act, please see Title II, Teacher Education of this *Undergraduate Catalog*.

## Degree Requirements

### High School Preparation

Please refer to the "High School Preparation" section in the *Undergraduate Catalog* under Admissions.

Music majors will need to have sufficient musical performance ability to undertake college-level music courses. Voice majors will benefit from taking French, German, and/or Italian in high school.

## Requirements for the BFA, BM, and BA Degrees

Basic Skill Courses (See "General Education Requirements" under "Academic Policies and Procedures" in the undergraduate Catalog)	BFA	BM	BA
ENGL 1550 & ENGL 1551 (Writing 1 & 2)	6	6	6
MATH 2623	3	3	3
CMST 1545	3	3	3
Domain Courses (See "General Education Requirements" under "Academic Policies and Procedures" in the undergraduate Catalog)	BFA	BM	BA
Arts & Humanities	6	6	6
Social Sciences	6	6	6
Natural Sciences (includes one lab science)	7	7	7
Social & Personal Awareness	6	6	6
First Year Experience	3	3	3
Foreign Language	0	0-12 <sup>1</sup>	0-8 <sup>2</sup>

<sup>1</sup> This requirement is for voice majors only. Each student must take the equivalent of an introductory course (1550) in French, German, and Italian. Consult the Department of Foreign Languages and Literatures for information about the Foreign Language Placement Test.

<sup>2</sup> Students must complete the equivalent of intermediate study (2600) in one language. Consult the Department of Foreign Languages and Literatures for information about the Foreign Language Placement Test.

## Professional Courses

These courses are listed under the appropriate department or school curricula.

Creative Arts and Communication students pursuing the BS in Education degree should consult the Beeghly College of Education section of this catalog.

## Additional Degree Requirements

- Upper-division status (including completion of any specified preparatory units lacking at entrance)
- Major and minor requirements
- Course-level requirements
- Point index requirement
- Residency requirement
- Completion of semester hours required for the degree
- Application for graduation

## Courses of Instruction

Course descriptions can be found in a separate section in the *Undergraduate Catalog*.

For more information, visit The College of Creative Arts and Communication (<http://www.yсу.edu/academics/college-creative-arts-and-communication>).

## Department of Art

(330) 941-3627

Email: Connect Form (<http://artdept.yсу.edu/connect>)

Website: Department of Art (<http://artdept.yсу.edu>)

Twitter: YSU Art Department (<http://artdept.yсу.edu/Twitter>)

The Department of Art offers courses that satisfy major requirements in art for the degrees of:

- Bachelor of Fine Arts
- Bachelor of Science in Education

These degrees may be earned in eight semesters if students average 16 hours per semester, with the exception of art education, which requires nine semesters.

The requirements for curricula and for graduation are in accordance with the published regulations of the National Association of Schools of Art and Design (NASAD).

For the Bachelor of Fine Arts degree, the programs in studio art are designed to familiarize the student with the basic concepts in art and the language of visual form. Concentration is on the development and involvement of the student with the processes and practices of art. A minimum of 126 semester hours is required for the BFA degree. Most BFA students require four and a half years to complete the degree. Passing ART 1503 Foundation Portfolio Review is required at the completion of the foundation sequence to continue in the program. In addition, BFA students are required to exhibit in a senior show at the John J. McDonough Museum of Art.

Students majoring in art who wish to qualify for licensure in Pre-K-12 art are required to complete a minimum of 68 semester hours in studio art and art education, at least 15 of them in art history. These students, after completing two years of study with a grade point average of 3.0, may apply for admission to the Beeghly College of Education. (Other requirements for admission are listed under the College of Education section.) No minor is required.

A minimum GPA of 2.5 is required to transfer into a Department of Art degree program. Studio art credit for transfer students is awarded based on a combination of portfolio work and prior college credit. Transfer credit is not awarded solely on a listing of courses on a transcript except for state mandated transfer courses. Transfer students should make an appointment

to show their portfolios. For more information regarding transferring into the Department of Art, visit Transfers (<http://artdept.yzu.edu/prospective-students/transfers>).

Not all emphases or programs are available in the evening. Students seeking a degree in art through an evening program should consult with the department chair to determine if it is possible.

## Facilities

The Department of Art includes 70,000 square feet of specialized labs for two-dimensional design, three-dimensional design, drawing, painting, printmaking, photography, ceramics, sculpture, art education, graphic and interactive design, digital media, art history lectures, and exhibitions. The Department of Art is housed in Bliss Hall, Youngstown Design Works is in the Phelps Building across campus, the McDonough Museum of Art is directly adjacent to Bliss Hall on the YSU campus, and The Beecher Center, a joint-use space for the University and the Butler Institute of American Art, is located across the street from Bliss Hall.

For further information about the department, including meeting with a faculty member who will discuss degree requirements with you, contact the department office at (330) 941-3627. The department office is located in Bliss Hall, Room 4001.

## Mission Statement

The mission at the Department of Art at Youngstown State University is to provide a teaching and learning environment for the development of skills, concepts and sensitivities essential to professional artists, designers, art educators, and art historians. This mission and the cultural enrichments that it entails are directed at the entire student body and at the community as a whole. This mission is accomplished within the context of a local multicultural society, thereby demanding special concern for the dissemination and sensitivity to a wide cultural heritage.

The department also recognizes the rapid changes occurring in technology and is dedicated to developing leadership in the application of technology to the arts. It is the commitment of the department to address both traditional issues and innovations in its educational environment.

The commitment to excellence in teaching, scholarship and service takes place within a wide array of disciplines at the undergraduate level. Majors are offered in studio art, and art education. Studio art includes concentrations in digital media, graphic design, painting, photography, printmaking, and 3-dimensional studies (sculpture/ceramic) as well as an interdisciplinary studio arts course of study. Degrees offered are the BFA (studio art), BA (art history), and the BSE (art education) in conjunction with the College of Education.

The department is committed to enhancing the intellectual and cultural climate of the University and community by presenting public activities and producing graduates with firm cultural and intellectual grounding, developed creativity, and problem-solving abilities.

There is a strong recognition in the department of the role of responsible, productive, and creative individuals in society and the place of the arts in determining the quality of life in a multicultural society.

## Teaching and Learning

The Department of Art will continue to offer a curriculum that balances creativity with traditional skills and emerging technologies while also focusing on contemporary issues and historical perspectives presented with varied methodologies.

## Accreditation

In support of the broader goals of the College of Creative Arts and Communication, the Department of Art is committed to the general standards for all undergraduate degree programs in art and design as expressed by

our accrediting agency, the National Association of Schools of Art and Design (NASAD). The Department of Art was reviewed in 2016, and the next campus visit is scheduled for 2026. For more information regarding NASAD accreditation, visit NASAD (<https://nasad.arts-accredit.org>).

## Art Career Possibilities

Advertising Consultant or Designer • Animator • Architectural Blacksmith • Architectural Illustrator • Art Advisor • Art Appraiser • Art Buyer • Art Consultant • Art Critic • Art Director • Art Educator • Art Fabricator • Art Historian • Art Journalist • Studio Artist • Art Librarian • Art Publicist • Art Therapist • Author • Backdrop Designer • Billboard Artist • CAD Designer • Caricaturist • Cartographer • Cartoonist • Ceramic Artist • Ceramic Designer • Commercial Artist • Commercial Photographer • Community Activist • Community Artist • Community Arts Instructor • Concept Illustrator • Conservator • Digital Fabrication • Digital/new media artist • Creative Director • Display Designer Commercial • Display Designer Retail • Documentarian • Draftsman • Editor • Fashion Illustrator • Fiber Artist • Fine Art Photographer • Gallery Director • Graphic Designer • Illustrator • Information Architect • Interactive Media Designer • Installation Artist • Jewelry Designer • Master Printer • Medical Illustrator • Metalsmith • Metals Artist • Muralist • Museum Curator • Museum Educator • Museum Registrar • Museum Staff • Painter • Performance Artist • Photographer • Photo Journalist • Police Sketch Artist • Exhibit Preparator • Printmaker • Prop Fabricator • Public Artist • Renderer • Sculptor • Set Decorator • Set Designer • Storyboard Artist • Technical Illustrator • Textile Designer • Video Artist • Videographer • Web Designer • Wood Artist • Wood Worker

## History

The Department of Art at Youngstown State University began in 1935 as an initiative of Howard Jones, the first president of the University. He supported the concept that aesthetics and art play a major role in the development of the individual in society. Howard Jones appointed Margaret Evans, former director and curator of the Butler Institute of American Art, to teach and direct the development of art courses in the curriculum. Evans began to establish a curriculum leading to a career in art education in elementary and secondary schools. During this period of development, art classes were held at the Butler Institute of American Art, the Mill Creek Park art museum and various locations on the campus, ranging from private mansions along Wick Avenue to the World War II army barracks built on the campus.

Since 1935, the department has grown to over 30 faculty members who teach 250 art majors studying drawing, painting, printmaking, photography, ceramics, sculpture, digital media, graphic design, interdisciplinary studio, art history, and art education. The department's facilities are located in Bliss Hall on the YSU campus and encompass over 70,000 square feet of specialized art studios and exhibition spaces. The exceptional arts programming by the YSU Department of Art is acknowledged by full accreditation by the National Association of Schools of Art and Design, an organization whose membership includes 309 schools out of approximately 2,500 art departments nationwide.

### Chair

**Joy Christiansen Erb**, M.F.A., Associate Professor, Acting Chair

### Professor

**Samuel Adu-Poku**, Ph.D., Professor

**Claudia A. Berlinski**, M.F.A., Assistant Professor

**Stephen Chalmers**, M.F.A., Associate Professor

**Dragana Crnjak**, M.F.A., Associate Professor

**Joseph D'Uva**, M.F.A., Associate Professor

**Johnathan Farris**, Ph.D., Assistant Professor

**Richard Helfrich**, M.F.A., Assistant Professor

**Lillian L. Lewis**, Ph.D., Assistant Professor

**Missy McCormick**, M.F.A., Associate Professor

**Christine E. McCullough**, M.F.A., Professor

**Greg Moring**, M.F.A., Professor

**Michelle Nelson**, M.F.A., Professor

**Stephanie Smith**, Ph.D., Professor

**Jonathan Dana Sperry**, M.F.A., Associate Professor

**Robert J. Thompson**, M.F.A., Assistant Professor

**Robert Twomey**, M.F.A., Assistant Professor

## Majors

- Bachelor of Science in Education Visual Arts Pre-K to 12 (p. 211)
- Bachelor of Fine Arts
  - Studio Art Digital Media Emphasis (p. 202)
  - Studio Art Interdisciplinary Studio Arts Emphasis (p. 206)
  - Studio Art Graphic + Interactive Design Emphasis (p. 205)
  - Studio Art Painting / Printmaking Emphasis (p. 207)
  - Studio Art Photography Emphasis (p. 210)
  - Studio Art 3-Dimensional Studies Emphasis (p. 203)

## Minors

- Art History Minor for Studio Art Majors (p. 202)
- Art History Minor For Non-Art Majors (p. 201)
- 3 Dimensional Studies Minor For Non- Art Majors (p. 201)
- 3 Dimensional Studies Minor For Art Majors (p. 201)
- Digital Media Minor For Non-Art Majors (p. 213)
- Digital Media Minor For Studio Art Majors (p. 213)
- Graphic Design Minor For Non-Art Majors (p. 213)
- Graphic Design Minor For Studio Art Majors (p. 213)
- Interactive Design Minor For Studio Art Majors (p. 214)
- Interactive Design Minor For Non-Art Majors (p. 213)
- Interdisciplinary Art Minor For Studio Art Majors (p. 214)
- Interdisciplinary Art Minor for Non-Art Majors (p. 214)
- Painting Minor For Studio Art Majors (p. 214)
- Painting Minor For Non-Art Majors (p. 214)
- Photography Minor For Non-Art Majors (p. 214)
- Printmaking Minor For Studio Art Majors (p. 215)
- Printmaking Minor For Non-Art Majors (p. 215)

### ART 1501 Fundamentals of 2D Design 3 s.h.

The fundamental ideas and principles of 2-dimensional form. Emphasis on basic design concepts, pictorial composition, color theory, vocabulary, media and processes. Slide lectures, directed readings and studio problems.

### ART 1502 Fundamentals of 3D Design 3 s.h.

Investigation of the interactions between line, plane, mass, and space. Emphasis on basic 3D concepts, color theory, vocabulary, media and techniques. Slide lectures, directed readings, writings and studio problems.

**Prereq.:** ART 1501.

### ART 1503 Foundation Portfolio Review 1 s.h.

A mandatory review of work completed in the Freshman Foundation Studio courses for students seeking the BFA in Studio Art degree. Students must pass the review to continue in the program and prior to selecting a concentration.

**Prereq.:** Art 1501, ART 1521 and enrollment in ART 1522 and ART 1502.

### ART 1505 Creative Art Appreciation 3 s.h.

This course will introduce to the non-art major creative techniques including drawing, painting, monoprinting, xerography, paper casting, and the artist books. Students will acquire the vocabulary necessary to talk, write and communicate intelligently about their own creative art as well as the creative art of others and gain technical visual skills as well as aesthetic training and appreciation of art through exposure to the diversity of the world's creative development of the pictorial narrative record and books.

### ART 1521 Foundation Drawing 3 s.h.

An introduction to basic drawing concepts, materials and methods. Emphasis on observational drawing. Concepts including the effective use of line, mass, volume, composition, space, and the formal principles of design.

### ART 1522 Intermediate Drawing 3 s.h.

A continuation of ART 1521 with greater emphasis on process, technique, spatial organization, and the development of pictorial content. Various topics are explored including figure drawing and the use of color.

**Prereq.:** ART 1501 and ART 1521.

### ART 1530 Sustainable Design in Practice 3 s.h.

Design in Practice Introduction to the visual and organizational components of two and three dimensional design, development of ideas and creative critical thinking as applied to tangible form. The course leads to an understanding of design as a verb and encourages inventiveness and collaboration to generate ideas.

**Gen Ed:** Environmental Sustainability, Social and Personal Awareness.

### ART 1530H Honors Sustainable Design in Practice 3 s.h.

Introduction to the visual and organizational components of two and three dimensional design, development of ideas and creative critical thinking as applied to tangible form. The course leads to an understanding of design as a verb and encourages inventiveness and collaboration to generate ideas.

**Gen Ed:** Environmental Sustainability, Social and Personal Awareness.

### ART 1540 Masterpieces of World Art 3 s.h.

An introduction to the ways that art communicates and how art interacts with our environment, our society, and our lives. Rather than a chronological study of the development of art, the course emphasizes the in-depth study of a number of works and issues, drawn from art from throughout the world, both past and present. Intended for non-art majors.

**Gen Ed:** Arts and Humanities, International Perspectives, Social and Personal Awareness.

### ART 1541 Survey of Art History 1 3 s.h.

A study of world art, focusing on the western European tradition. Covers the period from prehistoric times through 1500. Introduces key concepts, methods, and vocabulary for the study of art.

**Gen Ed:** Arts and Humanities.

### ART 1541H Honors Survey of Art History 1 3 s.h.

A study of world art, focusing on the western European tradition. Covers the period from prehistoric times through 1500. Introduces key concepts, methods, and vocabulary for the study of art.

**Gen Ed:** Arts and Humanities.

### ART 1542 Survey of Art History 2 3 s.h.

A study of world art, focusing on the western European tradition. Covers the period from 1500 to the present. Introduces key concepts, methods, and vocabulary for the study of art.

**Gen Ed:** Arts and Humanities, International Perspectives, Social and Personal Awareness.

**ART 1542H Honors Survey of Art History 2 3 s.h.**

A study of world art, focusing on the western European tradition. Covers the period from 1500 to the present. Introduces key concepts, methods, and vocabulary for the study of art.

**Gen Ed:** Arts and Humanities, International Perspectives, Social and Personal Awareness.

**ART 2611 Introduction to Sculpture 3 s.h.**

An introductory course for those who have little or no experience with sculpture. Students explore basic sculptural concepts and theories using a variety of materials and methods. Directed readings, writings, technical workshops, and participation in course work exhibitions required.

**Prereq.:** ART 1503 and ART 1522.

**ART 2615 Introduction to Metals 3 s.h.**

Basic metals fabrication in the creation of jewelry and small metal objects. Design as applied to hand processes.

**Prereq.:** ART 1502, ART 1522.

**ART 2621 Life Drawing 3 s.h.**

Students develop sound composition based upon accuracy of observation of the human figure. Understanding of proportion and the detailed study of skeletal and muscular systems will be addressed.

**Prereq.:** ART 1502, ART 1522.

**ART 2625 Introduction to Printmaking: Intaglio and Relief 3 s.h.**

An introduction to basic intaglio and relief printmaking processes, including etching, collagraph, lino-cut, woodcut, and multiple-block printing. Emphasis on technical, formal, and conceptual issues related to each technique.

**Prereq.:** ART 1503.

**ART 2626 Introduction to Printmaking: Lithography and Screenprinting 3 s.h.**

An introduction to basic lithography and screenprinting processes, including stone and plate lithography and photo-mechanical screen-printing. Emphasis on technical, formal, and conceptual issues related to each technique.

**Prereq.:** ART 1503.

**ART 2631 Introduction to Ceramics 3 s.h.**

Introduction to handbuilding methods, low-fire glaze application, pit firing, and firing procedures.

**Prereq.:** ART 1503 and passing the foundation portfolio review, or permission of instructor.

**ART 2640 Ceramics for Non Majors - Handbuilding 3 s.h.**

Introduction to the basic building methods, a variety of surfacing techniques, glaze and electric firing. Class projects will allow students to practice techniques while developing their personal aesthetic within the realm of ceramic art.

**ART 2641 Ceramics for Non-Majors- Wheel and Alternative Processes 3 s.h.**

Introduction to the basic wheel throwing technology, mold making, and slip casting process. A variety of surfacing techniques, glaze and kiln firing will be covered. Class projects will allow students to practice techniques while developing their personal aesthetic within the realm of ceramic art.

**ART 2648 Experience Art: Social and Behavioral Perspectives 3 s.h.**

An introductory course incorporating art education research methods to investigate social and behavioral influences on visual art learning. Classic and contemporary studies of artistic development and aesthetic response will be introduced. Learning encounters with art from early childhood through late adulthood will be addressed. Intended for education majors.

**ART 2650 Introduction to Painting 3 s.h.**

Exploration of new and traditional painting techniques and media. The student is encouraged to see significantly rather than imitatively in the process of developing form and content.

**Prereq.:** ART 1502, ART 1522, and passing the foundation portfolio review.

**ART 2653 Watercolor 3 s.h.**

Opaque, transparent, and inventive procedures with watercolor. Emphasis is on expressive use of the medium and development of personal style.

**Prereq.:** ART 1503.

**ART 2661 Introduction to Graphic Design 3 s.h.**

The basic concepts of graphic design theory including layout and organization of space, the elements of visual communication and the process of presentation from thumbnails through comprehensives.

**Prereq.:** ART 1503 and passing the foundation portfolio review.

**ART 2662 Introduction to Typography 3 s.h.**

Introduction to the basic technical understanding of type, including classification, anatomy, legibility, readability, and specification as well as an understanding of typography as an art form with an emphasis on typographic space in the page layout.

**Prereq.:** ART 2661.

**ART 2669 Introduction to Interactive Design 3 s.h.**

An Investigation of the aesthetic and practical processes, philosophies, and history behind the field of interactive design for on screen applications. Students employ various hardware/software tools available to designers for visual interactive design.

**Prereq.:** ART 2661.

**ART 2670 Photography for Non-majors 3 s.h.**

An introduction to fine art photography emphasizing visual literacy and technical skills for non-art majors. Course content focuses on digital camera operation, composition and design, lighting, ethics, basic computer editing, and outsourced printing. Student must provide camera.

**ART 2674 Introduction to Photography 3 s.h.**

Introduction to black and white digital photographic image capture emphasizing visual literacy, creative possibilities and critical awareness of the medium as an art form. Course content focuses on DSLR camera operation, composition and basic computer editing. A digital SLR camera is required.

**Prereq.:** ART 1503 or permission of instructor.

**ART 2691 Introduction to Digital Media 3 s.h.**

This course is designed to give students a technical and theoretical overview of digital media as a means of personal and cultural expression, strengthening visual literacy. Students will explore static and dynamic digital methods.

**Prereq.:** ART 1503 and passing the foundation portfolio review.

**ART 3703 Junior Portfolio Review 1 s.h.**

A mandatory review of work within each studio concentration. Students must pass to continue in the program.

**Prereq.:** Junior standing.

**ART 3712 Intermediate Sculpture 3 s.h.**

Examination of sculptural concepts through individual projects. Emphasis is on contemporary sculptural issues, techniques, and media. Directed readings, technical workshops and critiques required.

**Prereq.:** ART 2611.

**ART 3713 Advanced Sculpture Studio 3 s.h.**

This course continues the examination of contemporary sculptural issues, techniques and media. Students explore alternative sculptural approaches. Individual student projects determined by faculty consultation and critiques. Directed readings, writings, group discussions.

**Prereq.:** ART 3712 or permission of instructor.

**ART 3715 Intermediate Metals 3 s.h.**

This course examines the casting process used in creating jewelry and small metal objects. Emphasis will be on sound craftsmanship and successfully meeting the design challenges of the metals medium. Slide lecture, demonstrations, assigned readings and studio problems.

**Prereq.:** ART 2615.

**ART 3721 Expressive Drawing 3 s.h.**

Course work intended to provide a wider and more unusual format in the drawing process within the context of drawing philosophy and concepts. Use of color dynamics and different experimental materials, as well as increased scale and gestural action.

**Prereq.:** ART 1522.

**ART 3725 Intermediate Printmaking: Intaglio and Relief 3 s.h.**

Further exploration of intaglio and relief printmaking processes, including digital and photo-mechanical processes, and color inking techniques. Emphasis on refining technique, experimentation, and further development of concept through the study of historical and contemporary printmaking artists.  
**Prereq.:** ART 2625.

**ART 3726 Intermediate Printmaking: Lithography and Screenprinting 3 s.h.**

Further exploration of lithography and screenprinting processes, including digital and photo-mechanical processes, multiple-plate color printing, and alternative screenprinting methods. Emphasis on refining technique, experimentation, and further development of concept through the study of historical and contemporary printmaking artists.  
**Prereq.:** ART 2626.

**ART 3727 Topics in Advanced Printmaking 3 s.h.**

Variable topics including silkscreen, intaglio, monoprining, woodblock, bookmaking, and lithography. Students will develop their individual aesthetic through one of the processes. May be repeated up to four times with different topics.  
**Prereq.:** permission of instructor.

**ART 3732 Intermediate Ceramics 3 s.h.**

Continuation of handbuilding methods; introduction to wheel-thrown ceramics.  
**Prereq.:** ART 2631.

**ART 3733 Advanced Ceramics 3 s.h.**

Emphasis on clay as a means of personal expression through handbuilt and wheel-thrown ceramics.  
**Prereq.:** ART 3732.

**ART 3737 Pre-K-4, Visual Arts Education 3 s.h.**

Cognitive and interdisciplinary arts activities for multiple age levels to meet the developmental needs of learners at diverse ages. Curriculum development, long- and short-range planning, motivational procedures, assessment processes, field-based activities.  
**Prereq.:** Junior standing (63 s.h.).

**ART 3741 Topics in Medieval Art 3 s.h.**

Topics in European Art from the beginnings of Christianity through the Gothic period (500 and 1500 A.D.). Specific content varies by semester and may include a general survey of Medieval art, or in-depth topics such as Early Christian and Byzantine art or Medieval sculpture. May be taken twice for credit if content differs.  
**Prereq.:** ART 1541 or consent of instructor.

**ART 3741B Topics in Medieval Art: Early Medieval 3 s.h.**

Topics in European Art from the beginnings of Christianity through the Gothic period (500 and 1500 A.D.). Specific content varies by semester and may include a general survey of Medieval art, or in-depth topics such as Early Christian and Byzantine art or Medieval sculpture. May be taken twice for credit if content differs.  
**Prereq.:** ART 1541 or consent of instructor.

**ART 3742 Topics in Renaissance Art 3 s.h.**

The art and architecture of Europe during the 15th and 16th centuries. Examines the work of Michelangelo, Leonardo da Vinci, Durer, and others. Topics vary by semester and include the Renaissance in Italy and the Renaissance in Northern Europe. May be repeated if the content is different.  
**Prereq.:** ART 1542 or consent of instructor.

**ART 3743 Baroque and Rococo Art 3 s.h.**

Art and architecture of the 17th and early 18th centuries, an era of world exploration and scientific investigation. The works of such artists as Bernini, Velazquez, and Rembrandt are included.  
**Prereq.:** ART 1542 or consent of instructor.

**ART 3744 Seventeenth and Eighteenth Century American Art 3 s.h.**

Covering all aspects and media of painting, sculpture, architecture, and the decorative arts of 17th and 18th centuries.  
**Prereq.:** ART 1542 or consent of instructor.

**ART 3745 Nineteenth Century European Art 3 s.h.**

European painting and sculpture of Neo-classicism, Romanticism, and Realism. Include Impressionism and related movements. Art as part of social and political developments, and the foundations of modern formalism.  
**Prereq.:** ART 1542 or consent of instructor.

**ART 3746 Nineteenth Century American Art 3 s.h.**

Covering all aspects and media of painting, sculpture, architecture and the decorative arts of the 19th century.  
**Prereq.:** ART 1542 or consent of instructor.

**ART 3747 African-American Art 3 s.h.**

A survey of Black American art history from the 17th century through the 20th century.  
**Prereq.:** AFST 2601 or ART 1541 or ART 1542, or consent of instructor.

**ART 3748 Special Topics in Studio Art 3 s.h.**

Study in one of the many areas of the visual process that focuses on specific content or technical methods.  
**Prereq.:** ART 1503 or consent of instructor.

**ART 3751 Mixed Media Painting 3 s.h.**

Coursework is extended to expand the format for the painting process. Students will be introduced to variety of materials, mixed media painting processes as well as a range of technical and conceptual strategies that will provide avenues for diverse investigation of painting practice and a foundation for personal expression.  
**Prereq.:** ART 2650.

**ART 3752 Intermediate Painting 3 s.h.**

An understanding of painting processes in relation to both historical and contemporary painting practices. Concentration on individual content, direction, style, and technique.  
**Prereq.:** ART 2650.

**ART 3761 Intermediate Graphic Design 3 s.h.**

The interaction of type and images in visual communication. Students will be introduced to typographic grid as an organizing principle as well as the relationship of form to content.  
**Prereq.:** ART 2662.

**ART 3762 Advanced Typography 3 s.h.**

The development of sensitivity for specific typefaces and their effective use in communications. Emphasis will be directed toward the expressive use of type in interpretive, symbolic, and metaphoric solutions.  
**Prereq.:** ART 3703 and ART 3761.

**ART 3763 Illustration 3 s.h.**

Visual expression through various media, both electronic and traditional. Emphasis is on problem-solving through the exploration of technique, creative process and the development of personal styles.  
**Prereq.:** ART 1503.

**ART 3764 Typeface Design 3 s.h.**

An investigation of typeface design. Students will engage in developing one or more unique typefaces, and the promotional materials used to market them. Students will engage in research related to the history of type design, and current type trends and cultural inspirations.  
**Prereq.:** ART 2661.

**ART 3765 Motion for Interactive Design 3 s.h.**

An Investigation of motion for interface/web design. Students will engage current technologies to create dynamic motion for screen-based design.  
**Prereq.:** ART 3703 and ART 3761.

**ART 3768 Pre-Press Production 3 s.h.**

Introduction to the technical requirements of preparing a design for production including the importance of understanding pre-press software, printing technology and printing specifications.  
**Prereq.:** ART 2661.

**ART 3769 Intermediate Interactive Design 3 s.h.**

A further investigation of interactivity/screen design. Students will encounter projects ranging from web design to interactive screen-based publications.  
**Prereq.:** ART 2669 and ART 2662 or permission of instructor.

**ART 3771 Analog Photography 1 3 s.h.**

Introduction to photographic analog printing emphasizing photography as an expressive art form. Course content focuses on lighting, film development and black and white enlargement and printing. 3 s.h.

**Prereq.:** Art 2674 or ART 2671.

**ART 3772 Digital Photography 1 3 s.h.**

Introduction to color digital still photography utilizing the computer as a fine art tool. Course content focuses on retouching, image manipulation, color management and high quality printing.

**Prereq.:** ART 2671 or ART 2674.

**ART 3775 Photography: Issues and Practice 3 s.h.**

An examination of the critical theories of contemporary photographic practice. Trends within photography and related art forms are examined, from aesthetic, cultural, social and political points of view. Lectures are supplemented by directed readings, essays, and hands-on studio projects.

**Prereq.:** ART 3703.

**ART 3777 Alternative Intermediate Photography 3 s.h.**

Selected technical and conceptual topics developing alternative image making strategies that may include mural printing, mixed media, transfer imagery, digital negatives, non-silver processes, image toning and liquid emulsions. Readings and discussions.

**Prereq.:** ART 2674.

**ART 3780 African Art 3 s.h.**

Study of African tribal art forms and their relationship to the historical period in which they were created. The impact and influence of African art on the development of contemporary Western art trends.

**Prereq.:** AFST 2601 or ART 1541 or ART 1542, or consent of instructor.

**ART 3781 Native North American Art 3 s.h.**

The art and architecture of the native peoples of North America. Includes archeological sites and living artistic traditions, stressing the relationship between art and society.

**Prereq.:** ART 1542, a course in cultural anthropology, or consent of instructor.

**ART 3782 Topics in Pre-Columbian Art 3 s.h.**

The art and architecture of the ancient peoples of Mexico, Central and south America. Topics vary by semester, and include Mesoamerica (Mexico and northern Central America) and the Andes (Peru and Bolivia). May be taken twice if the content is different.

**Prereq.:** ART 1541, a course in cultural anthropology, or consent of instructor.

**ART 3783 History and Theory of Graphic Design 3 s.h.**

A chronological survey of graphic design from ancient to modern times. An emphasis on critical visual theory, specific designers who influenced the field as well as the relationship between visual communication and historical/cultural events.

**Prereq.:** ART 1542.

**ART 3786 History of Art and Technology 3 s.h.**

The historical overview of the role of technology in the art-making process as well as the identification of current and future uses of technology in the art world.

**Prereq.:** ART 1542.

**ART 3787 History and Appreciation of Art and Music 3 s.h.**

Illustrated lectures on art and music to develop the cultural growth of the non-art and non-music student. Art and music forms, comparisons of compositional styles, and discussion of the developments, influences, and experiments of the important periods to date. No prior training in art or music required. (Not intended for art majors). Listed also as MUHL 3787.

**Prereq.:** Junior standing.

**ART 3788 Theory of Art 3 s.h.**

The theories and philosophical implications of form in the visual arts, with emphasis on contemporary thought.

**Prereq.:** ART 1541, ART 1542, and junior standing.

**ART 3792 Video Art 3 s.h.**

This course introduces video as an expressive form of communication ranging from narrative to non-narrative structures. Students will gain technical knowledge by working individually and in small teams on pre-production, production and post production.

**Prereq.:** ART 2691 or permission of instructor.

**ART 3794 Introduction to Motion Studies 3 s.h.**

An introductory study of time-based motion graphics including traditional and two-dimension (2D) computer animation. Principles and techniques of motion graphics from storyboarding to digital composition. Discussion of exemplary works, historical background, and technological trends in motion graphics.

**Prereq.:** ART 2691.

**ART 3795 Advanced Digital Audio/Video Production 3 s.h.**

A project-oriented advanced study in digital audio/video production. A forum for further study of methods, procedures, and results attainable with video editing software, advanced editing techniques, digital compositing, and tilting software.

**Prereq.:** ART 3792 or permission of instructor.

**ART 3796 Ideation 3 s.h.**

This course focuses on learning about and practicing creative strategies that improve communication of content and ideas. While emphasis will be on strategies related to digital culture, outcomes can be in digital or non-digital mediums. This course is studio based with additional emphasis on reading, writing and discussion of related topics.

**Prereq.:** ART 2691.

**ART 3797 Web as Art 3 s.h.**

An introduction to web authoring within art context emphasizing the development of a creative and critical artistic practice while covering practical technical skills in web authoring.

**Prereq.:** ART 2691.

**ART 4800 Studio Problems 1-3 s.h.**

Advanced, independent study in any two- or three-dimensional studio discipline. May be repeated for a maximum of 9 s.h.

**Prereq.:** Senior standing and/or permission of instructor.

**ART 4800A Studio Problems Ceramics 1-3 s.h.**

Advanced, independent study in any two- or three-dimensional studio discipline. May be repeated for a maximum of 9 s.h.

**Prereq.:** Senior standing and/or permission of instructor.

**ART 4800B Studio Problems Digit Imaging 1-3 s.h.**

Advanced, independent study in any two- or three-dimensional studio discipline. May be repeated for a maximum of 9 s.h.

**Prereq.:** Senior standing and/or permission of instructor.

**ART 4800E Studio Problems Photography 1-3 s.h.**

Advanced, independent study in any two- or three-dimensional studio discipline. May be repeated for a maximum of 9 s.h.

**Prereq.:** Senior standing and/or permission of instructor.

**ART 4800F Studio Problems Printmaking 1-3 s.h.**

Advanced, independent study in any two- or three-dimensional studio discipline. May be repeated for a maximum of 9 s.h.

**Prereq.:** Senior standing and/or permission of instructor.

**ART 4801 Interdisciplinary Studies in the Visual Arts 1-4 s.h.**

Interdisciplinary courses developing areas of self-interest using the most suitable range of visual strategies, media and methods of artistic production. Students select faculty from different visual disciplines to form team of two mentors. Directed readings, structured research initiatives and individual projects. Experience in selected disciplines required.

**Prereq.:** ART 3703.

**ART 4802 Senior Project 3 s.h.**

A studio concentration intended as preparation and production of work for the Senior Show graduation requirement.

**Prereq.:** Senior status and permission of instructor.



**ART 4803 Senior Seminar 3 s.h.**

Capstone course for studio majors integrating writing, oral, and critical reasoning skills specific to the student's discipline within the larger framework of the visual arts.

**Prereq.:** Senior standing in Art.

**Gen Ed:** Capstone.

**ART 4805 Urban Internship in Art 3 s.h.**

This internship opportunity is open to any qualified studio art, art history or art education students. Interns work in galleries, art centers or an approved community art entity. Competitive and based on GPA, interview and portfolio. May be repeated in different locations up to three times.

**Prereq.:** Senior standing.

**ART 4814 Senior Project: Spatial Arts 3 s.h.**

Students prepare for their senior exhibition. Development, selection and installation of work determined through critiques by faculty. Career options for the professional artist explored. Portfolio and resume preparation, artist statements, gallery representation graduate study and other professional issues are considered.

**Prereq.:** ART 4834.

**ART 4824 Advanced Printmaking 3 s.h.**

Advanced study to include individual technical and conceptual research, refinement of technique utilizing a variety of printmaking processes, development of personal imagery through a portfolio of work. Emphasis on invention and concept development. Repeatable to 9 credit hours.

**Prereq.:** ART 3725 or ART 3726.

**ART 4829 Senior Project: Printmaking 3 s.h.**

The preparation, selection and development of a body of work in the printmaking discipline. Career options for the professional artist explored. Portfolio and resume preparation, artist's statement, gallery representation, graduate study and other professional issues are considered.

**Prereq.:** ART 4834.

**ART 4834 Advanced 3D Studies 3 s.h.**

Advanced students work on individual projects determined through discussions with and critiques by faculty. Emphasis is on personal aesthetic development, mainstream art issues, interdisciplinary approaches, and refinement of technical skills. Directed readings, writings, group discussions.

**Prereq.:** ART 3713 and ART 3733, or permission of instructor.

**ART 4837 Professional Practices in Middle School 3 s.h.**

An exploration of middle school multiarts teaching strategies including observation, presentation, assessment and lesson planning. Direct observation included.

**Prereq.:** ART 3737.

**ART 4838 Professional Practices in Secondary School 3 s.h.**

An exploration of secondary school multiarts teaching strategies including observation, presentation, assessment and lesson planning. Direct observation included.

**Prereq.:** ART 3737.

**ART 4839 Seminar in Art Education 1 s.h.**

Discussions of problems of the prospective teacher which involve plant facilities, tools, and supplies. Planning individual exhibits on site and on campus. Assembly of comprehensive portfolio and portfolio review. Required of all art education students and must be taken concurrently with student teaching.

**Prereq.:** ART 4838.

**ART 4851 Advanced Painting 1 3 s.h.**

Concentration on individualized content, direction, style, and technique.

**Prereq.:** ART 3751.

**ART 4852 Advanced Painting 2 3 s.h.**

An extension of individualized content, direction, style, and technique.

**Prereq.:** ART 4851.

**ART 4853 Advanced Painting 3 3 s.h.**

A further extension of individualized content, direction, style, and technique.

**Prereq.:** ART 4852.

**ART 4854 Senior Project: Painting 3 s.h.**

Advanced self-directed study in painting leading to the creation of a specific body of work supported by written documentation. Work from this project must relate to the Senior Show.

**Prereq.:** ART 4853.

**ART 4861 Publication Design 3 s.h.**

The use of type and visual elements in publication formats including newspaper design, newsletters, magazines, annual reports, book design and specialty publications.

**Prereq.:** ART 3703 and ART 3761.

**ART 4863 Corporate Identity Systems 3 s.h.**

The development of logos and their applications within an identity system. How corporate signatures are the fulcrum of an identity program and how its systemic usage impacts on the corporate image.

**Prereq.:** ART 3703 and ART 3761.

**ART 4864 Package Design 3 s.h.**

The application of graphic design concepts to three-dimensional problems in the creation of packaging design. Students will consider form, visual impact, and environmental concerns related to the creation of packaging.

**Prereq.:** ART 3703 and ART 3761.

**ART 4865 Advertising Graphics 3 s.h.**

The use of graphic elements in conjunction with type to produce advertisements for many different venues.

**Prereq.:** ART 3761 or permission of instructor.

**ART 4867 Graphic Design Internship 3 s.h.**

An application of graphic design theory and practices within a professional work experience. Students are selected on the basis of preparation, portfolio, GPA, and competitive interview. Enrollment is contingent upon the availability of internship positions.

**Prereq.:** ART 3703 and ART 3761.

**ART 4868 Graphic Design Practicum 3 s.h.**

Students will work with faculty members, and a real world client to produce promotional materials from concept to print. This course will offer a full service design firm-to-client experience that will allow the student to engage in all levels of the creative/production process.

**Prereq.:** Permission of instructor.

**ART 4869 Advanced Interactive Design 3 s.h.**

Continued investigation of interactivity/screen design. Students will engage in developing a more specific and individualized body of work in the area of web design or interactive screen-based publications.

**Prereq.:** ART 3703 and ART 3761.

**ART 4871 Analog Photography 2 3 s.h.**

An exploration of concepts and techniques in traditional analog fine art photography. Course content includes medium and large format films, advanced black and white printing and lighting techniques.

**Prereq.:** ART 2676 or ART 3771, or ART 2672 and ART 2673.

**ART 4872 Digital Photography 2 3 s.h.**

An exploration of concepts and techniques in digital fine art photography. Course content focuses on advanced image manipulation, lighting skills, large-scale printing and conceptual development.

**Prereq.:** ART 2675 or 3772, or ART 2672 and ART 2673.

**ART 4873 Advanced Photography 3 s.h.**

Advanced study of fine art photography exploring conceptual development and creative expression through individual projects. Course content focuses on project development, refinement of technical skills, reading and writing assignments. May be repeated a total of three times.

**Prereq.:** Passing of ART 3703 or permission of instructor.

**ART 4874 Photography Internship 3 s.h.**

Application of photographic knowledge and skills in the professional work environment. Admission based on preparation, portfolio, GPA, competitive interview, and the availability of internship locations.

**Prereq.:** ART 3776.

**ART 4880 Special Topics in Art History 3 s.h.**

Study in one of the many areas of art history. May be taken for up to three times for credit if the topic is not repeated.

**Prereq.:** ART 1541, ART 1542, or consent of instructor.

**ART 4883 Introduction to Museum Practices 3 s.h.**

An introduction to the field of museology. Lecture topics include museum history, architecture, the building and care of art collections, exhibitions, security and current trends. The facilities, collection and staff of The Butler Institute of American Art are a resource for the class as are other area museums.

**Prereq.:** 9 s.h. of art history and junior standing.

**ART 4884 Museum Internship 3 s.h.**

Practical experience in the museum working with the professional staff of The Butler Institute of American Art and/or other museums of the region. Students observe and assist in virtually every phase of museum operations from care of the collections through exhibition design and implementation. May be repeated up to three times.

**Prereq.:** ART 4883.

**ART 4885 Museum Registration Methods/Collections Management 3 s.h.**

This course will provide a practical basis for understanding registration procedure as it applies to all phases of a museum's collection-management policy. Course topics include documentation, collections management, processes, administration, risk management, ethical and legal issues.

**Prereq.:** ART 4883.

**ART 4889 Seminar in Art History 3 s.h.**

A seminar on problems in art history. Topics will be drawn from all periods and media. May be repeated with different topics up to 9 s.h.

**Prereq.:** Senior standing, 6 s.h. of art history, or consent of instructor.

**Gen Ed:** Capstone.

**ART 4891 Multimedia Design 3 s.h.**

Exploration of non-linear digital presentation involving compilation of still and moving images, live video, text, and sound. An overview of multimedia in the fields of web design, interactive programming and onscreen visual communication.

**Prereq.:** ART 2691.

**ART 4893 Advanced Digital Media Studio 3 s.h.**

Advanced students work on individual projects in guidance with faculty through directed readings, writings, group discussions and critiques. While refinement of technical skills is essential, emphasis is placed on experimentation, critical thinking and manipulation of the aesthetic experience. (May be repeated up to 12 s.h.).

**Prereq.:** ART 3792, or ART 3796, or ART 3797 or permission of instructor.

**ART 4894 Topics in Digital Imaging 3 s.h.**

This advanced level course provides an opportunity for the student to focus on one of the following areas of digital imaging: 2D imaging, 3D modeling, animation, video, or multimedia design. The student completes an independent project, meeting with the instructor on a weekly basis.

**Prereq.:** ART 2691.

**ART 4896 Art and Technology Internship 3 s.h.**

An application of theories and practices in the field of art and technology within a professional work environment. Admission is based on preparation, portfolio, GPA, competitive interview, and the availability of internship location.

**Prereq.:** ART 2691.

**ART 5840 Topics in Ancient Art 3 s.h.**

The art and architecture of the ancient cultures of the Mediterranean region and the Near East. Topics vary by semester, and include Egypt, the Ancient Near East, Greece, and Rome. May be taken twice if content is different.

**Prereq.:** Junior standing.

**ART 5850 Topics in Painting and Drawing 3 s.h.**

Selected topics in advanced painting and drawing. Specific content varies by semester and includes Landscape and Interiors; Portraiture; and Personal Narrative. May be repeated with a different topic for a total of three times.

**Prereq.:** ART 2650 or portfolio presentation and permission of instructor.

**ART 5860 Topics in Design 3 s.h.**

Selected topics in graphic design including typography, layout and computer applications. May be repeated for a total of three times with different topics.

**Prereq.:** Permission of instructor and portfolio.

**ART 5881 Twentieth Century Art to 1960 3 s.h.**

A survey of the visual arts history of the 20th century beginning with its 19th century roots. The influential artists, movements, and motivating theories will be covered against a backdrop of world events. Primary emphasis is placed upon French Impressionism, German Expressionism, Fauvism, Surrealism, and American Abstract Expressionism.

**Prereq.:** ART 1542 or permission of instructor.

**ART 5882 Twentieth Century Art from 1960 3 s.h.**

A survey of the visual arts history of the late 20th century beginning with those ideas and trends which followed Abstract Expressionism. Beginning with the late 1950s every principle artistic movement from Pop through post-Modernism will be explored against a backdrop of Post-War world events.

**Prereq.:** ART 1542 or permission of instructor.

## Minor in 3-Dimensional Studies for Art Majors

COURSE	TITLE	S.H.
Select six from the following:		
ART 3712	Intermediate Sculpture	18
ART 3713	Advanced Sculpture Studio	
ART 3732	Intermediate Ceramics	
ART 2615	Introduction to Metals	
ART 3715	Intermediate Metals	
ART 4834	Advanced 3D Studies	
ART 4800	Studio Problems	

**Total Semester Hours** 18

## Minor in 3-Dimensional Studies for Non-Art Majors

COURSE	TITLE	S.H.
ART 1501	Fundamentals of 2D Design	3
ART 1502	Fundamentals of 3D Design	3
ART 2611	Introduction to Sculpture	3
ART 2631	Introduction to Ceramics	3
Select three of the following:		
ART 3712	Intermediate Sculpture	9
ART 3713	Advanced Sculpture Studio	
ART 3732	Intermediate Ceramics	
ART 3733	Advanced Ceramics	
ART 4834	Advanced 3D Studies	

**Total Semester Hours** 21

## Minor in Art History for Non-Art Majors

COURSE	TITLE	S.H.
ART 1541	Survey of Art History 1	3
ART 1542	Survey of Art History 2	3
Select four of the following:		
ART 3741	Topics in Medieval Art	12
ART 3742	Topics in Renaissance Art	
ART 3743	Baroque and Rococo Art	

ART 3744	Seventeenth and Eighteenth Century American Art
ART 3745	Nineteenth Century European Art
ART 3746	Nineteenth Century American Art
ART 3781	Native North American Art
ART 3782	Topics in Pre-Columbian Art
ART 4880	Special Topics in Art History
ART 4889	Seminar in Art History
ART 5881	Twentieth Century Art to 1960
ART 5882	Twentieth Century Art from 1960
<b>Total Semester Hours</b>	
<b>18</b>	

## Minor in Art History for Studio Art Majors

COURSE	TITLE	S.H.
Select six of the following:		
ART 3741	Topics in Medieval Art	18
ART 3742	Topics in Renaissance Art	
ART 3743	Baroque and Rococo Art	
ART 3744	Seventeenth and Eighteenth Century American Art	
ART 3745	Nineteenth Century European Art	
ART 3746	Nineteenth Century American Art	
ART 3781	Native North American Art	
ART 3782	Topics in Pre-Columbian Art	
ART 4880	Special Topics in Art History	
ART 4889	Seminar in Art History	
ART 5881	Twentieth Century Art to 1960	
ART 5882	Twentieth Century Art from 1960	
<b>Total Semester Hours</b>		<b>18</b>

## Bachelor of Fine Arts in Studio Arts Digital Media Track

The areas of studio art emphasis for the BFA degree are:

- Interdisciplinary Studio Arts
- Graphic and Interactive Design
- Painting/Printmaking
- Photography
- Three-Dimensional Studies

The general requirements for this degree are listed in the College of Creative Arts and Communication section.

Please note that lab fees are charged for all studio classes. Lab fees help pay for some supplies, lab assistants, software, and small equipment.

COURSE	TITLE	S.H.
General Education Requirement		
ENGL 1550	Writing 1	12
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH Approved Math Course		
Arts and Humanities (included in major)		0
Natural Science (2 courses, 1 must include lab)		7
Social Science		6
Social and Personal Awareness		6
General Education / First Year Experience		3

Foundation Courses		
ART 1501	Fundamentals of 2D Design	3
ART 1502	Fundamentals of 3D Design	3
ART 1521	Foundation Drawing	3
ART 1522	Intermediate Drawing	3
ART 1503	Foundation Portfolio Review	1
Breadth Courses		
ART 2611	Introduction to Sculpture	3
ART 2625	Introduction to Printmaking: Intaglio and Relief	3
or ART 2626	Introduction to Printmaking: Lithography and Screenprinting	
ART 2661	Introduction to Graphic Design	3
ART 2631	Introduction to Ceramics	3
ART 2650	Introduction to Painting	3
ART 2674	Introduction to Photography	3
Art History and Theory		
ART 1541	Survey of Art History 1	3
ART 1542	Survey of Art History 2	3
ART 3788	Theory of Art	3
ART 5881	Twentieth Century Art to 1960	3
or ART 5882	Twentieth Century Art from 1960	
ART 37XX, Art History Elective		3
ART 37XX, Art History Elective		3
Concentration Courses		
ART 2691	Introduction to Digital Media	3
ART 3772	Digital Photography 1	3
ART 3792	Video Art	3
ART 3796	Ideation	3
ART 3797	Web as Art	3
ART 3703	Junior Portfolio Review	1
ART 4872	Digital Photography 2	3
or ART 3769	Intermediate Interactive Design	
ART 37XX/48XX Studio Art Elective		3
ART 37XX/48XX Studio Art Elective		3
ART 37XX/48XX Studio Art Elective		3
ART 4893	Advanced Digital Media Studio <sup>1</sup>	3
ART 4893	Advanced Digital Media Studio <sup>1</sup>	3
ART 4893	Advanced Digital Media Studio <sup>1</sup>	3
ART 4802	Senior Project	3
ART 4803	Senior Seminar	3
<b>Total Semester Hours</b>		<b>126</b>

<sup>1</sup> Must be taken a minimum of three times.

Course	Title	S.H.
Year 1		
Fall		
ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
ENGL 1550	Writing 1	3
General Education Course		3
Natural Science Course with Lab		4
<b>Semester Hours</b>		<b>16</b>
Spring		
ART 1502	Fundamentals of 3D Design	3
ART 1522	Intermediate Drawing	3

ART 1541	Survey of Art History 1	3
ART 1503	Foundation Portfolio Review	1
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Successful completion of Fr. portfolio review		
<b>Semester Hours</b>		<b>16</b>

**Year 2**

**Fall**

ART 2661	Introduction to Graphic Design	3
ART 2674	Introduction to Photography	3
ART 2691	Introduction to Digital Media	3
ART 1542	Survey of Art History 2	3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>

**Spring**

ART 3788	Theory of Art	3
ART 3772	Digital Photography 1	3
ART 3792	Video Art	3
or ART 3796	or Ideation	
or ART 3797	or Web as Art	
General Education Course		3
Studio Art Breadth Course		3
<b>Semester Hours</b>		<b>15</b>

**Year 3**

**Fall**

ART 3792	Video Art	3
or ART 3796	or Ideation	
or ART 3797	or Web as Art	
Studio Art Breadth Course		3
ART 4872	Digital Photography 2	3
ART 37/48XX Art History Elective		3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>

**Spring**

ART 3792	Video Art	3
or ART 3796	or Ideation	
or ART 3797	or Web as Art	
ART 4893	Advanced Digital Media Studio	3
Studio Art Breadth Course		3
ART 37/48XX Art History Elective		3
General Education Course		3
ART 3703	Junior Portfolio Review	1
<b>Semester Hours</b>		<b>16</b>

**Year 4**

**Fall**

ART 4893	Advanced Digital Media Studio	3
Studio Art Breadth Course		3
ART 37/48xx Studio Art Elective		3
ART 5881	Twentieth Century Art to 1960	3
or ART 5882	or Twentieth Century Art from 1960	
General Education Course		3
<b>Semester Hours</b>		<b>15</b>

**Spring**

ART 4802	Senior Project	3
ART 4893	Advanced Digital Media Studio	3
ART 4803	Senior Seminar	3
ART 37/48XX Studio Art Elective		3

General Education Elective	3	
<b>Semester Hours</b>		<b>15</b>
<b>Summer</b>		
ART 37/48xx Studio Art Elective	3	
<b>Semester Hours</b>		<b>3</b>
<b>Total Semester Hours</b>		<b>126</b>

**LEARNING OUTCOMES**

The student learning outcomes for studio art are as follows:

- Students will demonstrate thorough knowledge of arts vocabulary.
- Students will demonstrate skills in communicating verbally and visually in their knowledge about the arts.
- Students will achieve the highest possible level of technical skills in the appropriate medium.
- Students will achieve the highest possible level of content expression in the appropriate medium.
- Students will demonstrate working knowledge of trends in general art history and theory with an emphasis in 20th century art.

**Bachelor of Fine Arts in Studio Art 3-Dimensional Studies Track**

The areas of studio art emphasis for the BFA degree are:

- Interdisciplinary Studio Arts
- Graphic and Interactive Design
- Painting/Printmaking
- Photography
- Three-Dimensional Studies (Ceramics and Sculpture)

The general requirements for this degree are listed in the College of Creative Arts and Communication section.

Please note that lab fees are charged for all studio classes. Lab fees help pay for some supplies, lab assistants, software, and small equipment.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities included in major		0
Natural Science *one with lab		7
Social Science		6
Social and Personal Awareness		6
General Education Elective/First Year Experience		3
<b>Major Requirements</b>		
ART 1521	Foundation Drawing	3
ART 1522	Intermediate Drawing	3
ART 1501	Fundamentals of 2D Design	3
ART 1502	Fundamentals of 3D Design	3
ART 1503	Foundation Portfolio Review	1
ART 3721	Expressive Drawing	3
ART 2691	Introduction to Digital Media	3
ART 2621	Life Drawing	3
ART 2625	Introduction to Printmaking: Intaglio and Relief	3

or ART 2626	Introduction to Printmaking: Lithography and Screenprinting	
ART 2650	Introduction to Painting	3
ART 2674	Introduction to Photography	3
ART 2631	Introduction to Ceramics	3
ART 3732	Intermediate Ceramics	3
ART 3733	Advanced Ceramics	3
ART 2611	Introduction to Sculpture	3
ART 3712	Intermediate Sculpture	3
ART 3713	Advanced Sculpture Studio	3

**NOTE: ART 4834 must be repeated for a total of 9 s.h.**

ART 4834	Advanced 3D Studies	3
ART 4834	Advanced 3D Studies	3
ART 4834	Advanced 3D Studies	3
ART 3703	Junior Portfolio Review	1
ART 4802	Senior Project	3
ART 4803	Senior Seminar	3

#### Studio Art Electives

Select 9 s.h. of ART 37XX/48XX Studio Art Electives.	9
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#### Art History and Theory

ART 1541	Survey of Art History 1	3
ART 1542	Survey of Art History 2	3
ART 3788	Theory of Art	3
ART 5881	Twentieth Century Art to 1960	3
or ART 5882	Twentieth Century Art from 1960	

#### Art History Electives

Select 2 ART 37/48XX Art History Electives.	6
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**Total Semester Hours** 126

Course	Title	S.H.
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#### Year 1

##### Fall

ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
ENGL 1550	Writing 1	3
General Education Course/First Year Experience		3
General Education Course		3

**Semester Hours** 15

##### Spring

ART 1502	Fundamentals of 3D Design	3
ART 1522	Intermediate Drawing	3
ART 1541	Survey of Art History 1	3
ART 1503	Foundation Portfolio Review	1
ENGL 1551	Writing 2	3
General Education Course		3

**Semester Hours** 16

#### Year 2

##### Fall

ART 2611	Introduction to Sculpture	3
ART 2631	Introduction to Ceramics	3
ART 26XX Studio Art Breadth Course		3
ART 1542	Survey of Art History 2	3
General Education Course		3

**Semester Hours** 15

##### Spring

ART 3712	Intermediate Sculpture	3
ART 3732	Intermediate Ceramics	3

ART 2621	Life Drawing (spring only)	3
ART 3788	Theory of Art	3
General Education Course		3

**Semester Hours** 15

#### Year 3

##### Fall

ART 3713	Advanced Sculpture Studio	3
ART 3733	Advanced Ceramics	3
ART 3703	Junior Portfolio Review	1
ART 3721	Expressive Drawing (fall only)	3
Art History 3700 or higher		3
General Education Course		3

**Semester Hours** 16

##### Spring

ART 4834	Advanced 3D Studies	3
ART 26XX Studio Art Breadth Course		3
ART Studio Art Elective		3
ART 5881	Twentieth Century Art to 1960	3
or ART 5882	or Twentieth Century Art from 1960	
General Education Course with lab		4

Request a Graduation Evaluation from the CCAC Advising Office, 2310 Bliss Hall, (330) 941-3625 after you have completed 80-85 sh.

**Semester Hours** 16

#### Year 4

##### Fall

ART 4834	Advanced 3D Studies	3
ART 26XX Studio Art Breadth Course		3
ART Studio Art Elective		3
ART Art History 3700 or higher		3
General Education Course		3

**Semester Hours** 15

##### Spring

ART 4802	Senior Project	3
ART 4803	Senior Seminar	3
ART 4834	Advanced 3D Studies	3
ART Studio Art Elective		3
General Education Course		3

**Semester Hours** 15

##### Summer

Studio Art Elective *37xx or higher	3
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**Semester Hours** 3

**Total Semester Hours** 126

## Learning Outcomes

The student learning outcomes for studio art are as follows:

- Students will demonstrate thorough knowledge of arts vocabulary.
- Students will demonstrate skills in communicating verbally and visually in their knowledge about the arts.
- Students will achieve the highest possible level of technical skills in the appropriate medium.
- Students will achieve the highest possible level of content expression in the appropriate medium.
- Students will demonstrate working knowledge of trends in general art history and theory with an emphasis in 20th century art.

# Bachelor of Fine Arts in Studio Art Graphic + Interactive Design Track

The areas of studio art emphasis for the BFA degree are:

- Interdisciplinary Studio Arts
- Graphic and Interactive Design
- Painting/Printmaking
- Photography
- Three-Dimensional Studies (Ceramics and Sculpture)

The general requirements for this degree are listed in the College of Creative Arts and Communication section.

Please note that lab fees are charged for all studio classes. Lab fees help pay for some supplies, lab assistants, software, and small equipment.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities *included in Major		0
Natural Sciences * one with lab		7
Social Science		6
Social and Personal Awareness		6
General Education Elective/First Year Experience		3
<b>Major Requirements</b>		
ART 1521	Foundation Drawing	3
ART 1522	Intermediate Drawing	3
ART 1501	Fundamentals of 2D Design	3
ART 1502	Fundamentals of 3D Design	3
ART 1503	Foundation Portfolio Review	1
ART 2650	Introduction to Painting	3
ART 2691	Introduction to Digital Media	3
ART 2625 or ART 2626	Introduction to Printmaking: Intaglio and Relief Introduction to Printmaking: Lithography and Screenprinting	3
ART 2631	Introduction to Ceramics	3
ART 2611	Introduction to Sculpture	3
ART 2661	Introduction to Graphic Design	3
ART 2662	Introduction to Typography	3
ART 2669	Introduction to Interactive Design	3
ART 3761	Intermediate Graphic Design	3
ART 3703	Junior Portfolio Review	1
ART 4863	Corporate Identity Systems	3
ART 2674	Introduction to Photography	3
ART 4802	Senior Project	3
ART 3768	Pre-Press Production	3
ART 3769	Intermediate Interactive Design	3
ART 4803	Senior Seminar	3
<b>Graphic + Interactive Design Menu *CHOOSE 6 courses:</b>		18
ART 3748	Special Topics in Studio Art	
ART 3762	Advanced Typography	
ART 3763	Illustration	
ART 3764	Typeface Design	

ART 3765	Motion for Interactive Design	
ART 4861	Publication Design	
ART 4864	Package Design	
ART 4867	Graphic Design Internship	
ART 4868	Graphic Design Practicum	
ART 4869	Advanced Interactive Design	
Studio Art Elective: ART 37xx or 48xx		
<b>Art History and Theory</b>		
ART 1541	Survey of Art History 1	3
ART 1542	Survey of Art History 2	3
ART 3788	Theory of Art	3
ART 3783	History and Theory of Graphic Design	3
ART 5881	Twentieth Century Art to 1960	3
or ART 5882	Twentieth Century Art from 1960	
<b>Art History Elective</b>		
Select one ART 37XX Art History Elective.		3
<b>Total Semester Hours</b>		<b>129</b>
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
ENGL 1550	Writing 1	3
General Education Course/First Year Experience		3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ART 1502	Fundamentals of 3D Design	3
ART 1522	Intermediate Drawing	3
ART 1541	Survey of Art History 1	3
ART 1503	Foundation Portfolio Review	1
ENGL 1551	Writing 2	3
General Education Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
ART 2661	Introduction to Graphic Design	3
ART 2691	Introduction to Digital Media	3
ART 1542	Survey of Art History 2	3
ART Breadth Course-Intro to		3
General Education Course (with a lab)		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ART 2662	Introduction to Typography (F/S)	3
ART 3788	Theory of Art	3
ART 2669	Introduction to Interactive Design (F/S)	3
ART Breadth Course-Intro to		3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
ART 3761	Intermediate Graphic Design	3
ART 3769	Intermediate Interactive Design (F/X)	3
ART 3703	Junior Portfolio Review (F/S/X)	1
ART 3768	Pre-Press Production	3
ART Breadth Course-Intro to		3

General Education Course	3
<b>Semester Hours</b>	<b>16</b>
<b>Spring</b>	
ART 1 of six electives from G+ID menu	3
ART 1 of six electives from G+ID menu	3
ART Art History 37XX or higher	3
ART 3783 History and Theory of Graphic Design (S)	3
General Education Course	3
Request a Graduation Evaluation from the CCAC Advising Office, 2310 Bliss Hall, (330) 941-3625 after you have completed 80-85 sh.	
<b>Semester Hours</b>	<b>15</b>
<b>Year 4</b>	
<b>Fall</b>	
ART 4863 Corporate Identity Systems	3
ART 1 of six electives from G+ID menu	3
ART 1 of six electives from G+ID menu	3
ART Breadth Course-Intro to	3
General Education Course	3
<b>Semester Hours</b>	<b>15</b>
<b>Spring</b>	
ART 4802 Senior Project	3
ART 1 of six electives from G+ID menu	3
ART 4803 Senior Seminar	3
ART 5882 Twentieth Century Art from 1960	3
General Education Course	3
<b>Semester Hours</b>	<b>15</b>
<b>Summer</b>	
ART G+ ID required course, 1 of six electives from G+ ID menu, Art Breadth course, General Education Course or Art History	3
ART G+ ID required course, 1 of six electives from G+ ID menu, Art Breadth course, General Education Course or Art History	3
<b>Semester Hours</b>	<b>6</b>
<b>Total Semester Hours</b>	<b>129</b>

## Learning Outcomes

The student learning outcomes for studio art are as follows:

- Students will demonstrate thorough knowledge of arts vocabulary.
- Students will demonstrate skills in communicating verbally and visually in their knowledge about the arts.
- Students will achieve the highest possible level of technical skills in the appropriate medium.
- Students will achieve the highest possible level of content expression in the appropriate medium.
- Students will demonstrate working knowledge of trends in general art history and theory with an emphasis in 20th century art.

## Bachelor of Fine Arts in Studio Art Interdisciplinary Studio Arts Track

The areas of studio art emphasis for the BFA degree are:

- Interdisciplinary Studio Arts
- Graphic and Interactive Design
- Painting/Printmaking
- Photography
- Three-Dimensional Studies (Ceramics and Sculpture)

The general requirements for this degree are listed in the College of Creative Arts and Communication section.

Please note that lab fees are charged for all studio classes. Lab fees help pay for some supplies, lab assistants, software, and small equipment.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities *included in Major		0
Natural Sciences *one with a lab		7
Social Science		6
Social and Personal Awareness		6
General Education Elective/First Year Experience		3
<b>Major Requirements</b>		
ART 1521	Foundation Drawing	3
ART 1522	Intermediate Drawing	3
ART 1501	Fundamentals of 2D Design	3
ART 1502	Fundamentals of 3D Design	3
ART 1503	Foundation Portfolio Review	1
ART 2691	Introduction to Digital Media	3
ART 2625	Introduction to Printmaking: Intaglio and Relief	3
or ART 2626	Introduction to Printmaking: Lithography and Screenprinting	
ART 2631	Introduction to Ceramics	3
ART 2611	Introduction to Sculpture	3
ART 2674	Introduction to Photography	3
ART 2650	Introduction to Painting	3
Pick 2 26xx studio breath electives		6
ART 3703	Junior Portfolio Review	1
ART 4803	Senior Seminar	3
ART 4802	Senior Project	3
<b>Studio Art Electives</b>		
ART 3721	Expressive Drawing (*Strongly recommended)	3
or 37/48xx studio elective		
ART 3796	Ideation (*Strongly recommended)	3
or 37/48xx studio elective		
Select 24 s.h. of ART 37XX/48XX Studio Art Electives.		24
<b>Art History and Theory</b>		
ART 1541	Survey of Art History 1	3
ART 1542	Survey of Art History 2	3
ART 3788	Theory of Art	3
ART 5882	Twentieth Century Art from 1960	3
<b>Art History Electives</b>		
Select 6 s.h. of ART 37XX Art History Electives.		6
<b>Total Semester Hours</b>		<b>126</b>
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
ENGL 1550	Writing 1	3
General Education Course/First Year Experience		3

General Education Course	3
<b>Semester Hours</b>	<b>15</b>
<b>Spring</b>	
ART 1502 Fundamentals of 3D Design	3
ART 1522 Intermediate Drawing	3
ART 1541 Survey of Art History 1	3
ART 1503 Foundation Portfolio Review	1
ENGL 1551 Writing 2	3
General Education Course	3
<b>Semester Hours</b>	<b>16</b>

**Year 2**

**Fall**

ART 26XX Studio Breadth Course <sup>1</sup>	3
ART 26XX Studio Breadth Course <sup>1</sup>	3
ART 26XX Studio Breadth Course <sup>1</sup>	3
ART 1542 Survey of Art History 2	3
General Education Course	3
<b>Semester Hours</b>	<b>15</b>

**Spring**

ART 37XX/48XX Studio Art Elective	3
ART 26XX Studio Breadth Course <sup>1</sup>	3
ART 26XX Studio Breadth Course <sup>1</sup>	3
ART 3788 Theory of Art	3
General Education Course	3
<b>Semester Hours</b>	<b>15</b>

**Year 3**

**Fall**

ART 37XX/48XX Studio Art Elective	3
ART 37XX/48XX Studio Art Elective	3
ART 37XX/48XX Studio Art Elective	3
ART 26XX Studio Breadth Course	3
General Education Course w/Lab	4
<b>Semester Hours</b>	<b>16</b>

**Spring**

ART 3703 Junior Portfolio Review	1
ART 37XX/48XX Studio Art Elective	3
ART 37XX/48XX Studio Art Elective	3
ART 26XX Studio Breadth Course	3
ART 37XX/48XX Art History Elective	3
General Education Course	3

Request a Graduation Evaluation from the CCAC Advising Office, 2310 Bliss Hall, (330) 941-3625 after you have completed 80-85 sh.

<b>Semester Hours</b>	<b>16</b>
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**Year 4**

**Fall**

ART 37XX/48XX Studio Art Elective	3
ART 37XX/48XX Studio Art Elective	3
ART 37XX/48XX Studio Art Elective	3
ART 26XX Studio Breadth Course	3
ART 37XX/48XX Art History Elective	3
<b>Semester Hours</b>	<b>15</b>

**Spring**

ART 4802 Senior Project	3
ART 4803 Senior Seminar	3

ART 37XX/48XX Studio Art Elective	3
ART 37XX/48XX Art History Elective	3
General Education Course	3

<b>Semester Hours</b>	<b>15</b>
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**Summer**

General Education Course	3
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<b>Semester Hours</b>	<b>3</b>
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<b>Total Semester Hours</b>	<b>126</b>
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<sup>1</sup> Choice of Breadth Courses should be based on primary studio interests as they will be prerequisites for upper level study.

## Learning Outcomes

The student learning outcomes for studio art are as follows:

- Students will demonstrate thorough knowledge of arts vocabulary.
- Students will demonstrate skills in communicating verbally and visually in their knowledge about the arts.
- Students will achieve the highest possible level of technical skills in the appropriate medium.
- Students will achieve the highest possible level of content expression in the appropriate medium.
- Students will demonstrate working knowledge of trends in general art history and theory with an emphasis in 20th century art.

## Bachelor of Fine Arts in Studio Art Painting / Printmaking Track

The areas of studio art emphasis for the BFA degree are:

- Interdisciplinary Studio Arts
- Graphic and Interactive Design
- Painting/Printmaking
- Photography
- Three-Dimensional Studies (Ceramics and Sculpture)

The general requirements for this degree are listed in the College of Creative Arts and Communication section.

Please note that lab fees are charged for all studio classes. Lab fees help pay for some supplies, lab assistants, software, and small equipment.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities *included in Major		0
Natural Sciences *one with a lab		7
Social Science		6
Social and Personal Awareness		6
General Education Elective/First Year Experience		3
<b>Major Requirements</b>		
ART 1501	Fundamentals of 2D Design	3
ART 1502	Fundamentals of 3D Design	3
ART 1521	Foundation Drawing	3
ART 1522	Intermediate Drawing	3
ART 1503	Foundation Portfolio Review	1



ART 2611	Introduction to Sculpture	3
ART 2621	Life Drawing	3
ART 2631	Introduction to Ceramics	3
ART 2674	Introduction to Photography	3
ART 2691	Introduction to Digital Media	3
ART 3721	Expressive Drawing	3
<b>Painting/Printmaking Emphasis Courses</b>		<b>21</b>
<b>Painting Emphasis Courses for 21 s.h.</b>		
ART 2650	Introduction to Painting	
ART 2625	Introduction to Printmaking: Intaglio and Relief	
or ART 2626	Introduction to Printmaking: Lithography and Screenprinting	
ART 2653	Watercolor	
ART 3751	Mixed Media Painting	
ART 3752	Intermediate Painting	
ART 3725	Intermediate Printmaking: Intaglio and Relief	
or ART 3726	Intermediate Printmaking: Lithography and Screenprinting	
ART 4851	Advanced Painting 1	
<b>Printmaking Emphasis for 21 s.h.</b>		
ART 2625	Introduction to Printmaking: Intaglio and Relief	
ART 2626	Introduction to Printmaking: Lithography and Screenprinting	
ART 2650	Introduction to Painting	
ART 3725	Intermediate Printmaking: Intaglio and Relief	
ART 3726	Intermediate Printmaking: Lithography and Screenprinting	
ART 3751	Mixed Media Painting	
ART 4824	Advanced Printmaking	
<b>Both Painting and Printmaking</b>		
ART 3703	Junior Portfolio Review	1
ART 4802	Senior Project	3
ART 4803	Senior Seminar	3
<b>Both Painting and Printmaking pick 6</b>		
ART 4852	Advanced Painting 2	3
ART 4853	Advanced Painting 3	3
ART 4800	Studio Problems (may be repeated up to 9 s.h.)	3
ART 3748	Special Topics in Studio Art (may be repeated up to 9 s.h.)	3
ART 4824	Advanced Printmaking (may be repeated up to 9 s.h.)	3
37/48xx studio art elective		3
<b>Art History and Theory</b>		
ART 1541	Survey of Art History 1	3
ART 1542	Survey of Art History 2	3
ART 3788	Theory of Art	3
ART 5882	Twentieth Century Art from 1960 (*recommended)	3
or ART 5881	Twentieth Century Art to 1960	
<b>ART History Electives</b>		
Select 6 s.h. of ART History 37XX Electives.		6
<b>Total Semester Hours</b>		<b>129</b>

## Printmaking

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
ENGL 1550	Writing 1	3

General Education Course/First Year Experience		3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ART 1502	Fundamentals of 3D Design	3
ART 1522	Intermediate Drawing	3
ART 1541	Survey of Art History 1	3
ART 1503	Foundation Portfolio Review	1
ENGL 1551	Writing 2	3
General Education Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
ART 2625	Introduction to Printmaking: Intaglio and Relief (*both offered in SUMMER)	3
or ART 2626	Introduction to Printmaking: Lithography and Screenprinting	
ART 2691	Introduction to Digital Media	3
ART Breadth Course - suggest ART 2621		3
ART 1542	Survey of Art History 2	3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ART 2626	Introduction to Printmaking: Lithography and Screenprinting (*both offered in SUMMER)	3
or ART 2625	Introduction to Printmaking: Intaglio and Relief	
ART 2650	Introduction to Painting	3
ART Breadth Course		3
ART 3788	Theory of Art	3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
ART 3725	Intermediate Printmaking: Intaglio and Relief or Intermediate Printmaking: Lithography and Screenprinting	3
or ART 3726		
ART 3751	Mixed Media Painting (*also offered in SUMMER)	3
ART Breadth Course		3
General Education Course		3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ART 3726	Intermediate Printmaking: Lithography and Screenprinting	3
or ART 3725	Intermediate Printmaking: Intaglio and Relief	
ART 3703	Junior Portfolio Review	1
General Education Course *with a lab		4
ART 4824	Advanced Printmaking (**also offered in SUMMER)	3
ART Art History 37XX or Higher		3
Request a Graduation Evaluation from the CCAC Advising Office, 2310 Bliss Hall, (330) 941-3625 after you have completed 80-85 sh.		
<b>Semester Hours</b>		<b>14</b>

<b>Year 4</b>		
<b>Fall</b>		
ART 4824	Advanced Printmaking	3
ART Elective - 1 of 4 from P/P Elective menu		3
ART Elective - 1 of 4 from P/P Elective menu		3
ART Breadth Course		3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ART 4802	Senior Project (F/S/X)	3
ART 4803	Senior Seminar	3
ART 4824	Advanced Printmaking	3
ART 5882	Twentieth Century Art from 1960	3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Summer</b>		
<b>Select 6 s.h. from below courses</b>		<b>6</b>
ART 3725	Intermediate Printmaking: Intaglio and Relief or ART 3726 (3 s.h. also offered second year) or Intermediate Printmaking: Lithography and Screenprinting	
ART 4824	Advanced Printmaking (3 s.h. also offered third year) or Studio Problems	
ART 4800F	Studio Problems Printmaking	
ART 3748	Special Topics in Studio Art	
ART Studio 37/48xx Electives		3
ART 3751	Mixed Media Painting (3 s.h. also offered third year)	
<b>Semester Hours</b>		<b>9</b>
<b>Total Semester Hours</b>		<b>129</b>

Studio Art Painting/Printmaking Electives

<b>COURSE</b>	<b>TITLE</b>	<b>S.H.</b>
ART 4824	Advanced Printmaking	3
ART 4852	Advanced Painting 2	3
ART Studio Art 37XX/48XX Elective		3
ART 3748	Special Topics in Studio Art (varies)	3

## Painting

<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
ENGL 1550	Writing 1	3
General Education Course		3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ART 1502	Fundamentals of 3D Design	3
ART 1522	Intermediate Drawing	3
ART 1541	Survey of Art History 1	3
ART 1503	Foundation Portfolio Review	1
ENGL 1551	Writing 2	3
General Education Course		3
<b>Semester Hours</b>		<b>16</b>

<b>Year 2</b>		
<b>Fall</b>		
ART 2650	Introduction to Painting	3
ART 2625	Introduction to Printmaking: Intaglio and Relief <sup>1,2</sup> or ART 2625	3
	or Introduction to Printmaking: Intaglio and Relief	
Art Breadth Course		3
ART 1542	Survey of Art History 2	3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ART 3751	Mixed Media Painting	3
ART 2621	Life Drawing	3
Art Breadth Course		3
ART 3788	Theory of Art	3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>

<b>Year 3</b>		
<b>Fall</b>		
ART 3752	Intermediate Painting	3
ART 3721	Expressive Drawing	3
ART 3725	Intermediate Printmaking: Intaglio and Relief or ART 3726 <sup>1,2</sup>	3
	or Intermediate Printmaking: Lithography and Screenprinting	
Art History 3700 or higher		3
General Education Course with Lab		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ART 3703	Junior Portfolio Review	1
ART 4851	Advanced Painting 1	3
ART 2653	Watercolor	3
Art 1 of 4 from Painting Electives		3
Art History 3700 or higher		3
General Education Course		3
<b>Semester Hours</b>		<b>16</b>

<b>Year 4</b>		
<b>Fall</b>		
ART 4852	Advanced Painting 2	3
Art Breadth Course		3
ART 5882	Twentieth Century Art from 1960	3
Art 1 of 4 from Painting Electives		3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ART 4802	Senior Project	3
ART 4803	Senior Seminar	3
ART 4853	Advanced Painting 3	3
Art 1 of 4 from Painting Electives		3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>

<b>Year 4</b>		
<b>Summer</b>		
Art 1 of 4 from Painting Electives		3

Art Breadth Course	3
<b>Semester Hours</b>	<b>6</b>
<b>Total Semester Hours</b>	<b>129</b>

COURSE	TITLE	S.H.
Painting Electives		
ART 4852	Advanced Painting 2 <sup>3</sup>	3
or ART 4853	Advanced Painting 3	
ART 4824	Advanced Printmaking <sup>3</sup>	3
ART 37XX/48XX		
ART 4800	Studio Problems <sup>3</sup>	1-3

- ART 2625 and ART 2626 may vary semesters and ART 3725 and ART 3726 may vary semesters.
- ART 2625 is the prerequisite for ART 3725. ART 2626 is the prerequisite for ART 3726.
- May be repeated for up to 9 credit hours (varied topics)

## Learning Outcomes

The student learning outcomes for studio art are as follows:

- Students will demonstrate thorough knowledge of arts vocabulary.
- Students will demonstrate skills in communicating verbally and visually in their knowledge about the arts.
- Students will achieve the highest possible level of technical skills in the appropriate medium.
- Students will achieve the highest possible level of content expression in the appropriate medium.
- Students will demonstrate working knowledge of trends in general art history and theory with an emphasis in 20th century art.

# Bachelor of Fine Arts in Studio Art Photography Track

The areas of studio art emphasis for the BFA degree are:

- Interdisciplinary Studio Arts
- Graphic and Interactive Design
- Painting/Printmaking
- Photography
- Three-Dimensional Studies (Ceramics and Sculpture)

The general requirements for this degree are listed in the College of Creative Arts and Communication section.

Please note that lab fees are charged for all studio classes. Lab fees help pay for some supplies, lab assistants, software, and small equipment.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities	*included in Major	0
Natural Sciences	*one with lab	7
Social Science		6
Social and Personal Awareness		6
General Education Elective/First Year Experience		3

<b>Major Requirements</b>		
ART 1521	Foundation Drawing	3
ART 1522	Intermediate Drawing	3
ART 1501	Fundamentals of 2D Design	3
ART 1502	Fundamentals of 3D Design	3
ART 1503	Foundation Portfolio Review	1
ART 2650	Introduction to Painting	3
ART 2625	Introduction to Printmaking: Intaglio and Relief	3
or ART 2626	Introduction to Printmaking: Lithography and Screenprinting	
ART 2691	Introduction to Digital Media	3
ART 2661	Introduction to Graphic Design	3
ART 2631	Introduction to Ceramics	3
ART 2611	Introduction to Sculpture	3
ART 2674	Introduction to Photography	3
ART 3772	Digital Photography 1	3
ART 3771	Analog Photography 1	3
ART 3703	Junior Portfolio Review	1
ART 3748	Special Topics in Studio Art (Photography)	3
ART 4871	Analog Photography 2	3
ART 4872	Digital Photography 2	3
ART 4873	Advanced Photography	3
ART 4802	Senior Project	3
ART 4803	Senior Seminar	3

<b>Select 6 courses for 18 s.h.</b>	<b>18</b>
ART 3748	Special Topics in Studio Art (Any)
ART 4874	Photography Internship
ART 37xx/48xx Studio Art Electives	

<b>Art History and Theory</b>		
ART 1541	Survey of Art History 1	3
ART 1542	Survey of Art History 2	3
ART 3788	Theory of Art	3
ART 5881	Twentieth Century Art to 1960	3
or ART 5882	Twentieth Century Art from 1960	

<b>Art History Electives</b>		
Select two ART 37XX Art History Electives.		6

<b>Total Semester Hours</b>	<b>129</b>
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Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
General Education Course		3

<b>Semester Hours</b>	<b>15</b>
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<b>Spring</b>		
ART 1502	Fundamentals of 3D Design	3
ART 1522	Intermediate Drawing	3
ART 1503	Foundation Portfolio Review	1
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
General Education Course		3

<b>Semester Hours</b>	<b>16</b>
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<b>Year 2</b>		
<b>Fall</b>		
ART 2674	Introduction to Photography (F/S/X)	3
ART 2691	Introduction to Digital Media (F/S)	3
ART 1541	Survey of Art History 1	3
ART Breadth Course		3
GER Natural Science with Lab		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ART 3772	Digital Photography 1	3
ART 3771	Analog Photography 1	3
ART 1542	Survey of Art History 2	3
ART Breadth Course		3
General Education Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
ART 3703	Junior Portfolio Review (F/S) <sup>2</sup>	1
ART 4800	Studio Problems (Photography)	3
ART 4871	Analog Photography 2	3
ART 5881 or ART 5882	Twentieth Century Art to 1960 or Twentieth Century Art from 1960	3
ART 2661	Introduction to Graphic Design	3
ART Breadth Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ART 3748	Special Topics in Studio Art (S)	3
ART 4872	Digital Photography 2	3
ART 3788	Theory of Art	3
ART Studio Art Elective (37XX or higher)		3
General Education Course		3
Request a Graduation Evaluation from the CCAC Advising Office, 2310 Bliss Hall, (330) 941-3625 after you have completed 80-85 sh.		
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
ART 4873	Advanced Photography (F)	3
ART Art History Elective (37XX or higher)		3
ART Studio Art Elective (37XX or higher)		3
ART Studio Art Elective (37XX or higher)		3
General Education course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ART 4802	Senior Project	3
ART 4803	Senior Seminar	3
ART 3748	Special Topics in Studio Art (Photography)	3
ART Studio Art Elective (37XX or higher)		3
General Education course		3
<b>Semester Hours</b>		<b>15</b>
<b>Summer</b>		
ART Breadth Course		3
ART Studio Art Elective (37XX or higher)		3
<b>Semester Hours</b>		<b>6</b>
<b>Total Semester Hours</b>		<b>129</b>

- Course sequencing and schedule is subject to change. Please meet with an advisor regularly when making a graduation plan.
- Students must have passed or be enrolled in ART 2674 Introduction to Photography, ART 3772 Digital Photography 1, ART 3771 Analog Photography 1 and ART 4871 Analog Photography 2 or ART 4872 Digital Photography 2 to qualify for ART 3703 Junior Portfolio Review. Students must take ART 4800 Studio Problems at the same time as taking ART 3703 Junior Portfolio Review.

## Learning Outcomes

The student learning outcomes for studio art are as follows:

- Students will demonstrate thorough knowledge of arts vocabulary.
- Students will demonstrate skills in communicating verbally and visually in their knowledge about the arts.
- Students will achieve the highest possible level of technical skills in the appropriate medium.
- Students will achieve the highest possible level of content expression in the appropriate medium.
- Students will demonstrate working knowledge of trends in general art history and theory with an emphasis in 20th century art.

## Bachelor of Science in Education in Art Education (PK to 12) Multi-Age License

### Overview

Note: Students can be licensed to teach Pre-K to 12 by completing the BFA in Studio Art and the Art Education and Education requirements as well.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities included in major		0
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective/First Year Experienter		3
<b>Major Requirements</b>		
ART 1521	Foundation Drawing	3
ART 1522	Intermediate Drawing	3
ART 1501	Fundamentals of 2D Design	3
ART 1502	Fundamentals of 3D Design	3
ART 1503	Foundation Portfolio Review	1
ART 3721	Expressive Drawing	3
ART 2691	Introduction to Digital Media	3
ART 2625	Introduction to Printmaking: Intaglio and Relief	3
-OR-		
ART 2626	Introduction to Printmaking: Lithography and Screenprinting	
ART 2661	Introduction to Graphic Design	3
ART 2631	Introduction to Ceramics	3
ART 2611	Introduction to Sculpture	3
ART 2674	Introduction to Photography	3

ART 2650	Introduction to Painting	3
ART 2653	Watercolor	3
ART 2615	Introduction to Metals	3
<b>Art Education Requirements</b>		
ART 3737	Pre-K-4, Visual Arts Education	3
ART 4837	Professional Practices in Middle School	3
ART 4838	Professional Practices in Secondary School	3
ART 4839	Seminar in Art Education	1
<b>Education Requirements</b>		
EDFN 1501	Introduction to Education	3
TERG 3710	Reading Application in Content Areas, Middle Years	3
PSYC 3709	Psychology of Education	3
EDFN 3708	Education and Society	3
SPED 2630	Individuals with Exceptionalities in Society	3
SED 4842A	Student Teaching Seminar for Secondary Education	2
SED 4843	Supervised Student Teaching: Art (K-12)	10
<b>Art History and Theory</b>		
ART 1541	Survey of Art History 1	3
ART 1542	Survey of Art History 2	3
ART 3788	Theory of Art	3
ART 5882	Twentieth Century Art from 1960	3
<b>Art History Elective</b>		
Select one ART 37XX Art History Elective.		3
<b>Total Semester Hours</b>		<b>129</b>

This four-year plan is an illustration of a potential sequence of courses that you may take, but you need to meet with an academic advisor to plan a specific course sequence that is most appropriate for your needs.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
ENGL 1550	Writing 1	3
EDFN 1501	Introduction to Education	3
MATH 2623	Quantitative Reasoning	3
GER SPA/First Year Experience		3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
ART 1502	Fundamentals of 3D Design	3
ART 1522	Intermediate Drawing	3
ENGL 1551	Writing 2	3
PSYC 1560	General Psychology	3
ART 1503	Foundation Portfolio Review	1
GER NS/L		4
<b>Semester Hours</b>		<b>17</b>
<b>Year 2</b>		
<b>Fall</b>		
ART 2615	Introduction to Metals	3
ART 3721	Expressive Drawing	3
ART 1541	Survey of Art History 1	3
CMST 1545	Communication Foundations	3
GER NS		3
GER SPA		3
<b>Semester Hours</b>		<b>18</b>

<b>Spring</b>		
ART 2653	Watercolor	3
ART Breadth Course		
ART 1542	Survey of Art History 2	3
SPED 2630	Individuals with Exceptionalities in Society	3
GER SS		3
GER Elective		3
Request for Graduation Evaluation is completed online, printed and submitted to the BCOE Office of Student Services, room 2101, with the preclinical application.		

**Semester Hours 18**

<b>Year 3</b>		
<b>Fall</b>		
ART 3737	Pre-K-4, Visual Arts Education	3
EDFN 3708	Education and Society	3
ART Breadth Course		
PSYC 3709	Psychology of Education	3
EDTC 3771	Technology for Teaching	3
TERG 3710	Reading Application in Content Areas, Middle Years	3
<b>Semester Hours</b>		<b>18</b>

<b>Spring</b>		
ART 4837	Professional Practices in Middle School	3
ART Breadth Course		
ART 3788	Theory of Art	3
ART Breadth Course		
ART 5882	Twentieth Century Art from 1960	3
ART Breadth Course		
<b>Semester Hours</b>		<b>18</b>

<b>Year 4</b>		
<b>Fall</b>		
ART 4838	Professional Practices in Secondary School	3
ART 37XX Art History Elective		
ART Breadth Course		
ART Breadth Course		
MULT 2611	Foundations of Multi-age Education	2
<b>Semester Hours</b>		<b>14</b>

<b>Spring</b>		
ART 4839	Seminar in Art Education	1
SED 4843	Supervised Student Teaching: Art (K-12) (Field Experience)	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>134</b>

Candidates will not be permitted to take the following professional education courses more than twice:

COURSE	TITLE	S.H.
EDFN 1501	Introduction to Education	3
EDFN 3708	Education and Society	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society	3
TERG 2601	Reading Application in Content Area Early Years	3
TERG 3701	Phonics in Reading Instruction	3
TERG 3702	Developmental Reading Instruction	3
TERG 3703	Assessment and Instruction in Reading	3

TERG 3710	Reading Application in Content Areas, Middle Years	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
TEMC 4802	Student Teaching: Middle Childhood	5-10
SED 4800 series		
ECE 2629	Best Practices in Early Childhood Intervention Specialist	3
ECE 3760	Cross-Curricular Applications and Classroom Management/Guidance	3
Pre-student Teaching courses – ECE TEC		
MCE Internship		
STEP		
SED 3706	Principles of Teaching Adolescents	3
Student Teaching Seminar		
Student Teaching		

## Learning Outcomes

The student learning outcomes for visual arts Pre-K to 12 are as follows:

- Students will demonstrate thorough knowledge of arts vocabulary.
- Students will demonstrate skills in communicating verbally and visually in their knowledge about the arts.
- Students will achieve the highest possible level of technical skills in the appropriate medium.
- Students will achieve the highest possible level of content expression in the appropriate medium.
- Students will demonstrate working knowledge of trends in general art history and theory with an emphasis in 20th century art.
- Students will demonstrate pedagogical skills and insights as they pertain to specific classroom needs.
- Students will demonstrate awareness and growth in confidence in teaching contemporary strategies while teaching the visual arts.
- Students will demonstrate skill in discriminating between creative (divergent) experiences and those that do not promote the artistic growth of the child (convergent).

## Minor in Digital Media for Non-Art Majors

COURSE	TITLE	S.H.
ART 1501	Fundamentals of 2D Design	3
ART 2691	Introduction to Digital Media	3
Select four of the following:		12
ART 3748	Special Topics in Studio Art (Digital Media)	
ART 3792	Video Art	
ART 3796	Ideation	
ART 3797	Web as Art	
ART 4800	Studio Problems (Digital Media)	
ART 4893	Advanced Digital Media Studio (may be repeated 2 times for 6 s.h.)	
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Digital Media for Studio Art Majors

COURSE	TITLE	S.H.
ART 2691	Introduction to Digital Media	3
<b>Select five (5) courses from the following:</b>		<b>15</b>

ART 3792	Video Art (3 s.h.)	
ART 3796	Ideation (3 s.h.)	
ART 3797	Web as Art (3 s.h.)	
ART 3748	Special Topics in Studio Art (*Digital Media 3 s.h.)	
ART 4800	Studio Problems (may be taken twice 3-6 s.h. (permission of instructor required))	
ART 4893	Advanced Digital Media Studio (may be taken twice 3-6 s.h.)	
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Graphic Design for Non-Art Majors

COURSE	TITLE	S.H.
ART 1501	Fundamentals of 2D Design	3
ART 2691	Introduction to Digital Media	3
ART 2661	Introduction to Graphic Design	3
ART 2662	Introduction to Typography	3
ART 3761	Intermediate Graphic Design	3
ART 3762	Advanced Typography	3
Select one of the following:		3
ART 2669	Introduction to Interactive Design	
ART 4861	Publication Design	
ART 3768	Pre-Press Production	
<b>Total Semester Hours</b>		<b>21</b>

## Minor in Graphic Design for Studio Art Majors

COURSE	TITLE	S.H.
ART 2661	Introduction to Graphic Design	3
ART 2662	Introduction to Typography	3
ART 3761	Intermediate Graphic Design	3
ART 2669	Introduction to Interactive Design	3
Select two of the following:		6
ART 3762	Advanced Typography	
ART 4861	Publication Design	
ART 3768	Pre-Press Production	
ART 4863	Corporate Identity Systems	
ART 4864	Package Design	
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Interactive Design for Non-Art Majors

COURSE	TITLE	S.H.
ART 1501	Fundamentals of 2D Design	3
ART 2691	Introduction to Digital Media (prerequisite 1501)	3
ART 2661	Introduction to Graphic Design (prerequisite 2691)	3
ART 2669	Introduction to Interactive Design (prerequisites 2691 & 2661)	3
ART 2662	Introduction to Typography (prerequisite 2669)	3
ART 3769	Intermediate Interactive Design (prerequisites 2669 & 2662)	3
Select one of the following:		3
ART 4869	Advanced Interactive Design (prerequisite Art 3769)	

ART 4800	Studio Problems (Graphic Design)	
ART 3765	Motion for Interactive Design	
ART 4863	Corporate Identity Systems	
<b>Total Semester Hours</b>		<b>21</b>

## Minor in Interactive Design for Studio Art Majors

COURSE	TITLE	S.H.
ART 2691	Introduction to Digital Media	3
ART 2661	Introduction to Graphic Design	3
ART 2669	Introduction to Interactive Design	3
ART 2662	Introduction to Typography	3
ART 3769	Intermediate Interactive Design	3
Select one of the following:		3
ART 4869	Advanced Interactive Design	
ART 3765	Motion for Interactive Design	
ART 4863	Corporate Identity Systems	
ART 4867	Graphic Design Internship	
ART 4800	Studio Problems	
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Interdisciplinary Art for Studio Art Majors

Select 18 credits from two or three Studio Art disciplines (painting, printmaking, ceramics, sculpture, etc). Two courses must be upper division. Students cannot double count courses between the major and the minor.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
<b>Choose 2-3 Studio Art disciplines (for which you have completed the introductory class) and Select 18 semester hours from the following (2 must be upper division):</b>		<b>18</b>
ART 2615	Introduction to Metals (Prerequisite ART 1503)	
ART 2653	Watercolor (Prerequisite ART 1503)	
ART 3772	Digital Photography 1	
ART 2621	Life Drawing (Prerequisite ART 1503)	
<b>Upper Division</b>		
ART 3712	Intermediate Sculpture (Prerequisite ART 2611)	
ART 3713	Advanced Sculpture Studio (Prerequisite ART 3712)	
ART 3715	Intermediate Metals (Prerequisite ART 2615)	
ART 3721	Expressive Drawing (Prerequisite ART 1503)	
ART 3725	Intermediate Printmaking: Intaglio and Relief (Prerequisite ART 2625)	
ART 3726	Intermediate Printmaking: Lithography and Screenprinting (Prerequisite ART 2626)	
ART 3732	Intermediate Ceramics (Prerequisite ART 2631)	
ART 3733	Advanced Ceramics (Prerequisite ART 3732)	
ART 3748	Special Topics in Studio Art (Ideation - topic varies (Prerequisite ART 2691)	
ART 3748	Special Topics in Studio Art (Prerequisite ART 1503)	
ART 3751	Mixed Media Painting (Prerequisite ART 2650)	
ART 3752	Intermediate Painting (Prerequisite ART 3751)	
ART 3792	Video Art (Prerequisite ART 2691)	
ART 4800	Studio Problems (various disciplines - Senior Standing or Permission)	

ART 4834	Advanced 3D Studies ((Ceramics) Prerequisite ART 3733)	
ART 4834	Advanced 3D Studies ((Sculpture) Prerequisite ART 3713)	
ART 4824	Advanced Printmaking (Prerequisite ART 3725 or ART 3726)	
ART 4851	Advanced Painting 1 (Prerequisite ART 3752)	
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Interdisciplinary Art for Studio Non-Art Majors

COURSE	TITLE	S.H.
ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
ART 1502	Fundamentals of 3D Design	3
Select one 2600-level course from any fine art discipline (drawing, printmaking, painting, ceramics, sculpture).		3
Select two 3700-level courses from any fine art discipline (drawing, printmaking, painting, ceramics, sculpture).		6
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Painting for Non-Art Majors

COURSE	TITLE	S.H.
ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
ART 2650	Introduction to Painting	3
ART 3751	Mixed Media Painting	3
ART 3752	Intermediate Painting	3
Select two of the following:		6
ART 2653	Watercolor	
ART 4851	Advanced Painting 1	
ART 4852	Advanced Painting 2	
ART 4800	Studio Problems (Painting)	
<b>Total Semester Hours</b>		<b>21</b>

## Minor in Painting for Studio Art Majors

COURSE	TITLE	S.H.
ART 3751	Mixed Media Painting	3
ART 3752	Intermediate Painting	3
ART 4851	Advanced Painting 1	3
ART 4852	Advanced Painting 2	3
Select two of the following:		6
ART 2653	Watercolor	
ART 4853	Advanced Painting 3	
ART 4800	Studio Problems	
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Photography for Non-Art Majors

COURSE	TITLE	S.H.
ART 1501	Fundamentals of 2D Design	3

ART 2674	Introduction to Photography	3
ART 3772	Digital Photography 1	3
ART 3771	Analog Photography 1	3
Select two of the following:		6
ART 4872	Digital Photography 2	
ART 4871	Analog Photography 2	
ART 3748	Special Topics in Studio Art	
ART 4873	Advanced Photography	
ART 4800	Studio Problems (Photography)	

**Total Semester Hours** 18

## Minor in Photography for Art Majors

COURSE	TITLE	S.H.
ART 3772	Digital Photography 1	3
ART 3771	Analog Photography 1	3
Select four courses from the following:		12
ART 4871	Analog Photography 2	
ART 4872	Digital Photography 2	
ART 3748	Special Topics in Studio Art	
ART 4873	Advanced Photography	
ART 4800E	Studio Problems in Photography (may be repeated two times)	

**Total Semester Hours** 18

## Minor in Printmaking for Non-Art Majors

COURSE	TITLE	S.H.
SELECT 18 HOURS TOTAL AS DIRECTED BELOW:		
Select one or both of the following:		
ART 1501	Fundamentals of 2D Design	
ART 1521	Foundation Drawing	
Select one or both of the following:		
ART 2625	Introduction to Printmaking: Intaglio and Relief	
ART 2626	Introduction to Printmaking: Lithography and Screenprinting	

Select one or both that coincide with Intro to Print Selections:		
ART 3725	Intermediate Printmaking: Intaglio and Relief	
ART 3726	Intermediate Printmaking: Lithography and Screenprinting	

May be taken up to 3 times:		
ART 4824	Advanced Printmaking	
ART 4800	Studio Problems (Printmaking)	

**Total Semester Hours** 18

## Minor in Printmaking for Studio Art Majors

COURSE	TITLE	S.H.
Select one or both of the following:		6
ART 2625	Introduction to Printmaking: Intaglio and Relief	
ART 2626	Introduction to Printmaking: Lithography and Screenprinting	
Select one or both that coincide with Intro to Print Selection(s):		6
ART 3725	Intermediate Printmaking: Intaglio and Relief	

ART 3726	Intermediate Printmaking: Lithography and Screenprinting	
ART 4824	Advanced Printmaking (may be taken up to 3 times for 3-6 s.h.)	3
ART 4800	Studio Problems (may be taken up to 3 times for 3-6 s.h.)	3

**Total Semester Hours** 18

## Department of Communication

(330) 941-3631

Twitter - YSU Communication (<https://twitter.com/youngstownstate>)  
 Facebook - Youngstown State University Department of Communication (<https://www.facebook.com/youngstownstate>)  
 Web - Department of Communication (<http://cms.yzu.edu/college-creative-arts-and-communication/communication/department-communication>)

### Mission Statement

The faculty of the Department of Communication share Youngstown State University's mission to maintain high standards in teaching, research, and service. To this end, faculty members are productive scholars in the discipline, staying abreast of technological and theoretical developments. These advancements are brought into the classroom to foster students' ability to communicate competently using traditional and mediated channels. Students are introduced to the most recent and relevant communication theory, research, and technological skills through practical activities in mediated, interpersonal, public, and professional contexts that serve students' long-term goals, promote the university, and serve the larger Youngstown community.

### Department Overview

The Department of Communication houses three Bachelor of Arts (B.A.) degree programs and one Master of Arts (M.A.) degree program. The B.A. programs include Communication Studies (p. 216), Journalism (p. 216), and Telecommunication Studies (p. 217). The M.A. in **Professional Communication** is a multidisciplinary graduate program with courses in communication, marketing, and professional and technical writing.

In addition to completing general education and major courses within specific programs, students are required to complete a minor. B.A. degrees can be earned in four years (eight semesters) if a student averages 15 to 16 hours per semester, and in three years (six semesters) if a student averages 18 to 21 hours per semester. The M.A. degree can be earned in three or four semesters.

Department of Communication students find many outlets to build on the skills they learn in and out of the classroom. For example, Lambda Pi Eta, a communication honorary organization, recognizes our outstanding students and provides opportunities for greater involvement and leadership. Opportunities for active involvement in media production and programming exist with YSU Athletics (<http://www.ysusports.com>) (NCAA D1 sports productions), Penguin Rundown (<https://www.facebook.com/Penguinrundown>) (weekly sports web show), *The Jambar* (YSU's student newspaper), Light the Wick (<https://www.youtube.com/channel/UCPSmcPPEDs-YwLMVZDb1AcA>) (arts-based web show), and Rookery Radio (<http://www.rookeryradio.com>) (YSU's first-ever, internet-only, student-run radio station).

Our full- and part-time faculty are more than teachers and professors. They are mentors and motivators. Many come with experience from various communication- and media-related industries (e.g., *Cleveland Plain Dealer*, ESPN (<http://espn.go.com>), WHOT 101 FM (<http://www.hot101.com>), WFMJ (<http://www.wfmj.com>), WKBN (<http://www.wkbn.com>), WYTV (<http://www.wyvtv.com>), NewsRadio 570AM (<http://570wkbn.heart.com>), *The Vindicator*, etc.). They are active scholars engaged in their disciplines. Most of our faculty have interest in the study of mass media and new media, but



other research interests include argumentation and rhetoric, group and organizational communication, interpersonal and intercultural communication.

The department's home office is located in Bliss Hall within the College of Creative Arts & Communication. Here, you will find a medium-sized department (a little more than 350 students) with a warm and cheerful environment that puts students first. Our facilities include smart classrooms, audio and video labs, journalism labs, and an full-HD television studio.

For more information about the department, including meeting with a faculty member who will help you prepare for the future, contact the department office at (330) 941-3631, or email our department administrative assistant, Ms. Debbie Yiannaki, at [dayiannaki@ysu.edu](mailto:dayiannaki@ysu.edu). The department office is located in Bliss Hall, Room 2000.

## Programs

### Communication Studies, B.A.

Courses in this B.A. degree program provide students with the necessary communication skills for an evolving global marketplace and future career demands. The Communication Studies program deals, in part, with people in conversations in settings that are usually face-to-face, but that are increasingly becoming mediated (such as computer-mediated). Public speaking, media and public relations, persuasion, conflict management, social media, and gender communication are some of the areas students examine in this major. Courses touch on a wide variety of areas including social and political movements, the process of legislation, or new media communication.

### Program Tracks

Communication Studies courses address the universal emphasis placed on effective, competent communication skills by employers and recruiters. The core curriculum of 18 credit hours includes courses covering these communication skills. The curriculum is then divided into four unique tracks to better prepare students for a particular career. Each of the tracks is described below. The overriding goal of each track is to challenge each student to explore and apply the many forms of communication:

- Human resources or management careers in profit or nonprofit organizations, or those looking for a general, all-encompassing communication degree, should consider the **interpersonal/organizational track**.
- A career path in media management, media criticism, or public relations and advertising should choose the **media track**.
- Careers in pharmaceutical sales, industrial sales, retail and corporate sales, politics, or law (including law school) should choose the **persuasion track**.
- Our newest curricular offering focuses on social media management, marketing, literacy, communication, and campaigning. Students interested in these new media options should choose the **social media track**.

Students completing their degree in communication studies are uniquely qualified to enter the job market and compete effectively throughout their careers for advancement and promotion.

Through course offerings and applied learning experiences, the communication studies program combines a rich liberal arts emphasis with a much needed specialized professional and career focus for undergraduate students.

### Admission Policy for Communication Studies

To major in communication studies, entering freshmen may simply declare a communication studies major. Transfer students must have a GPA of 2.00 and be in "good academic standing." Students are expected to meet with a communication studies faculty advisor prior to registration and are encouraged to meet with an advisor when they have questions or concerns, and to monitor progress.

### Journalism, B.A.

Information is power. Society must have professionals who can supply people with the information they need to make decisions about their lives and their futures. At Youngstown State University, we believe in the importance of journalism to society and to democracy. We believe that journalists have the power to shape the world.

Guided by this philosophy, YSU's journalism major gives you a balance of practical and theoretical experience. We teach you to ask tough questions, to uncover and interpret information, to write leads, to conduct interviews, and to work with technologies to deliver the news in multiple platforms from print to broadcast to podcast. We also encourage you to think critically about the stories you report and the impact they will have on communities and society in general.

The journalism program trains students for entry-level positions in reporting, editing, and newspaper design. The curriculum is a blend of courses that support this goal, such as news reporting, editorial and opinion writing, feature writing, editing and design for newspapers, a journalism practicum (journalism workshop) in which students write for the student newspaper, and a battery of courses designed to enhance editing, writing and publishing skills. Journalism majors are encouraged to declare minors that support their specific career objectives, such as public relations, photography, political science, telecommunications, or art/design.

### Why Journalism?

There has never been a better time to study journalism.

With the explosion of available information, people now need and want credible information. They need what journalists do and there are more venues now than at any other point in history for how to disseminate that information.

Be prepared. This is not the journalism of yesterday. While still loyal to the basic principles of giving people accurate and reliable information that they need to make decisions about their lives, journalism has changed in how news is delivered.

Ink and newsprint are virtually obsolete. Instead, you will be telling stories with video cameras and still cameras and you will be getting story tips from readers and linking to other people's reporting. The world of modern journalism is all about innovation and entrepreneurial spirit.

### Why Journalism at YSU

At Youngstown State University, we understand the importance of journalism in society.

With a hands-on teaching philosophy and a strong belief in practical experience, YSU journalism instructors train students for careers in journalism. We also train students to be entrepreneurial in their thinking about how to apply their journalistic skills. From the basics of news judgment to more sophisticated ethical decisions, YSU journalism majors graduate with the skills to land jobs, build careers and most importantly, report important stories in all media platforms.

We keep close watch on trends in the industry and are always eager for ways to integrate new ideas and technologies into what we teach. We are also deeply committed to innovation and experimentation. We work hard to help our students gain professional experience and routinely help them get their work broadcast or published by local, state and national media.

Reporters and editors from numerous legacy and new media organizations, from *The Vindicator* and *The New York Times* to ProPublica and WFMJ Television, offer us regular feedback about our program and what we need to be offering students.

### Admission Policy for journalism

To major in journalism, entering freshmen may simply declare a journalism major. Transfer students must have a GPA of 2.00 and be in "good academic standing." Students are expected to meet with a journalism faculty advisor

prior to registration and are encouraged to meet with an advisor when they have questions or concerns, and to monitor progress.

### Telecommunication Studies, B.A.

Telecommunication Studies (TCOM) at YSU is a dynamic, cutting edge baccalaureate program comprising about 125 majors and 12 full- and part-time faculty. We focus on the messages that bombard us every day – through advertising, television and film, news, the Internet, magazines, friends, family and more. We study how to make those messages, how to package and distribute them, and how to profit from them.

Our program addresses human communication that passes through some medium such as television, radio or the Internet. For example, in this area, students may study how the Internet impacts traditional forms of broadcast media (i.e., radio, television). Students learn about early stages of the field, as well as contemporary combinations of telecasting through the Internet. Courses in the TCOM curriculum provide students with an in-depth knowledge and intellectual challenge in electronic communication. Students receive practical orientation to the skills and techniques of broadcasting. Students explore contemporary theories and problems which are central to media, as well as examine new communication media.

From a liberal arts perspective, the TCOM curriculum is designed to aid the student in pursuit of careers not only in broadcasting but also in recently expanding avenues of communication such as non-commercial broadcasting, corporate communication, industrial communication, cablecasting, and independent production. Internships are available in media organizations to students of superior academic achievement.

### Program Tracks

Your degree program will comprise several clusters of requirements:

**General Education**, which helps you learn the core knowledge for a college education and to master the skills you'll need to be effective in learning at advanced levels.

**Major and Minor**, where you develop mastery of your main interest areas. Also, you study at levels far above that in any other course area.

You'll find two types of courses in your major. Some are regular classroom courses where you develop your intellectual knowledge and skill. Others are **applied or studio courses** that help you master your media performance, production or business skills.

**Tracks** are clusters of required and elective courses within your major to develop a specific focus of study or a particular set of media skills. There are two tracks in the B.A. degree program in telecommunication studies:

- Media Arts Track
- Sports Broadcasting Track

**Electives**, which are courses you elect to take because of their particular importance to your intellectual growth.

### Admission Policy for teleCommunication Studies

Students who declare an intent to major in telecommunication studies, whether on the media arts track or sports broadcasting track, will be assigned to the "Pre-Telecommunication" (Pre-TCOM) category. Upon completion of 15 semester hours while in the Pre-TCOM category, and completion of ENGL 1550, TCOM 1570 OR 1580, and TCOM 1581 (with grades of A or B in all three), students will be reassigned to the "Telecommunication Studies" (TCOM) category and track of choice (media arts OR sports broadcasting).

Students may transfer to the Pre-TCOM, but not TCOM, category from another program at YSU or from another institution. Students who have completed associate- or bachelor-level degrees also may enter the Pre-TCOM, but not TCOM, category. Upon completion of 15 semester hours while in the Pre-TCOM category, and completion of ENGL 1550, TCOM 1570 OR 1580, and TCOM 1581

(with grades of "A" or "B" in all three), students will be reassigned to the TCOM category.

Students who have interrupted their attendance at YSU for three consecutive semesters or more will be assigned to the Pre-TCOM category upon return (even if the student was a TCOM major). After completion of 15 semester hours while in the Pre-TCOM category, and completion of ENGL 1550, TCOM 1570 OR 1580, and TCOM 1581 (with grades of "A" or "B" in all three), students will be reassigned to the TCOM category.

#### Chair

**Amy Graban Crawford**, Ph.D., Associate Professor, Acting Chair

**Adam C. Earnhardt**, Ph.D., Professor, Chair

#### Professor

**Shelley Blundell**, Ph.D., Assistant Professor

**Rebecca M. L. Curnalia**, Ph.D., Associate Professor

**Mary Beth Earnhardt**, Ph.D., Associate Professor

**Max V. Grubb**, Ph.D., Assistant Professor

**Walter T. Mathews**, Ph.D., Associate Professor

**Daniel J. O'Neill**, Ph.D., Professor

**Alfred W. Owens**, Ph.D., Professor

**Jeffrey L. Tyus**, Ph.D., Associate Professor

**Cary Wecht**, Ph.D., Professor

#### Instructor

**David Davis**, M.S., Instructor

**Patricia Foltz**, M.A., Instructor

**Guy Harrison**, M.S., Instructor

**Jaietta Jackson**, M.A., Instructor

**Dorian Mermer**, M.A., Instructor

## Majors

- **Bachelor of Arts in Communication Studies**
  - Social Media Track (p. 227)
  - Interpersonal/Organizational Track (p. 222)
  - Media Track (p. 224)
  - Persuasion Track (p. 225)
- Bachelor of Arts in Journalism (p. 229)
- Bachelor of Arts in Journalism Broadcast and Digital Media Track (p. 231)
- **Bachelor of Arts in Telecommunication Studies**
  - Media Arts Track (p. 232)
  - Sports Broadcasting Track (p. 234)

## Minors

- Minor in Communicating in Diverse Organizations (p. 235)
- Minor in Communication Studies (p. 236)
- Minor in Interpersonal Communication (p. 236)
- Minor in Journalism Studies (p. 236)
- Minor in Magazine and Specialty Reporting (p. 236)

- Minor in Multimedia Reporting (p. 236)
- Minor in Social Media Campaigns (p. 236)
- Minor in Sports Information (p. 237)
- Minor in Telecommunication Studies (p. 237)

**CMST 1545 Communication Foundations 3 s.h.**

Theories, strategies, and skills for competent participation in interpersonal, group, and public communication situations. Application exercises in interpersonal, group, and public communication.

**Prereq.:** Qualified to take ENGL 1550.

**CMST 1545H Honors Communication Foundations 3 s.h.**

Theories, strategies, and skills for competent participation in interpersonal, group, and public communication situations. Application exercises in interpersonal, group, and public communication.

**Prereq.:** Qualified to take ENGL 1550.

**CMST 2600 Communication Theory 3 s.h.**

The study of significant theories of communication that reflect the diversity of communication studies and address different communication contexts: interpersonal, group, public, organizational, and mass.

**Gen Ed:** Social Science.

**CMST 2610 Intercultural Communication 3 s.h.**

The study of key historical and contemporary theories that affect communication across cultural boundaries. Exercises for improving communication skills in intercultural communication situations are included.

**Gen Ed:** Domestic Diversity, Social and Personal Awareness.

**CMST 2630 Social Media Literacy 3 s.h.**

Analyze and evaluate social media communication in its variety of forms. Includes message evaluation, digital media curating, ethics and privacy.

**CMST 2645 Presentational Speaking 3 s.h.**

In-depth examination of the theory and practice of preparing and delivering presentations in today's work environment. Emphasis on using technology aids during presentations.

**Prereq.:** CMST 1545 or equivalent.

**CMST 2650 Rhetoric of Film 3 s.h.**

Conceptual examination and critical analyses of film including mythic, feminism, Marxist, auteur, genre, and rhetorical perspectives.

**Prereq.:** ENGL 1551.

**CMST 2655 Communication in Groups and Organizations 3 s.h.**

Introduction to theories and concepts relating to group and organizational communication effectiveness with practical career applications.

**CMST 2656 Interpersonal Communication 3 s.h.**

An examination of the skills necessary to develop, maintain, and evaluate one-to-one relationships. Through practical experiences from everyday life, the class examines what occurs when one person communicates with another.

**CMST 3700 Designing Communication Research 3 s.h.**

A study of the processes involved in designing both qualitative and quantitative communication research projects. Communication research design and implementation.

**Prereq.:** 15 s.h. of Communication Studies including CMST 2600, and ENGL 1551.

**CMST 3717 Intro to Media Relations Campaigns 3 s.h.**

An experiential, service-learning course in designing and implementing Media Relations campaigns.

**Prereq.:** CMST 1545.

**CMST 3740 Social Media Communication 3 s.h.**

Examination of applications and strategies for communicating through social media, including managing personal and professional social media messages, social media content development, and dissemination.

**Prereq.:** CMST 2630.

**CMST 3745 Individual Studies 1-3 s.h.**

Student selects a special problem or issue in communication to research in detail under the direction of a faculty member, pending department committee approval. Repeatable to 6 hrs.

**Prereq.:** Junior standing.

**CMST 3750 Gender Communication 3 s.h.**

Principal concepts and issues of gender and communication as they apply to identity, and communication within and between the genders in a variety of contexts.

**Prereq.:** CMST 1545.

**CMST 3754 Argumentation 3 s.h.**

Developing critical thinking through systematic evaluation of theories, principles, and practices of argumentation.

**Prereq.:** CMST 2600.

**CMST 3756 Interviewing 3 s.h.**

Theories of communication applied to interview situations with a special concern for developing student understanding of and skills needed to participate in one-to-one and panel interviews.

**Prereq.:** CMST 1545 and junior standing.

**CMST 3757 Media Relations Writing 3 s.h.**

A lecture-lab course in writing pamphlets, advertisements, newsletters, and websites for media relations campaigns.

**Prereq.:** ENGL 1551.

**CMST 4850 Social Media Campaigns 3 s.h.**

Integrated media campaign development using social media applications; theory and practice of social media campaign lifecycles including inception, implementation, and evaluation of client-based projects.

**Prereq.:** CMST 1545 and junior standing.

**CMST 4851 New Communication Media 3 s.h.**

New media histories, technologies, and cultures. Considers promising future forms, and includes issues of authorship, community, identity, interactivity, visuality, the nature and power of technology, intelligent systems, and artificial life.

**Prereq.:** CMST 2600 and junior standing.

**CMST 4855 Interpersonal Communication Relationships 3 s.h.**

Theories of relationship development, maintenance and termination. The impact of face-to-face and mediated communication on interpersonal relationships.

**Prereq.:** CMST 2600 and CMST 2656 and junior standing.

**CMST 4859 Organizational Cultures 3 s.h.**

Analysis of organizational cultures. Relationships between organizational culture and communication in modern organizations.

**Prereq.:** CMST 2655 or junior standing.

**CMST 4896 Internship 3 s.h.**

An application of communication theories and practice within organizational settings. Weekly meetings with faculty supervisor are required. Weekly field work is 15 hours. May be repeated to a maximum of 6 s.h.

**Prereq.:** CMST 2655, junior standing, major in Communication Studies, and approval of Internship Proposal form.

**CMST 4898 Media Analysis 3 s.h.**

Application of methods of analysis to describe and critique the content of various types of media, including new media, news media, and entertainment media. Emphasis on the relationship between media content, uses, and effects.

**Prereq.:** CMST 3700.

**CMST 4899 Senior Project 3 s.h.**

Synthesis of research, writing, and presentation skills through the completion of a communication research project and professional development activity. Repeatable to a maximum of 6 s.h. Grading is Traditional/PR.

**Prereq.:** Senior standing, major in Communication Studies, 24 s.h. of communication studies major complete, including CMST 3700 or 3799.

**Gen Ed:** Capstone.

**CMST 5852 Conflict Management and Negotiation 3 s.h.**

An in-depth analysis of the theories and variables influencing conflict management, resolution, and negotiation. Includes strategies and skills for mediation and arbitration.

**Prereq.:** CMST 2600.

**CMST 5860 Persuasion and New Media 3 s.h.**

Introduction to persuasion theory and application of theory to new communication media.

**Prereq.:** CMST 2600 and CMST 3700 or graduate status.

**CMST 5898 Seminar 3 s.h.**

A cooperative exploration of topics in communication studies. May be repeated up to 6 s.h.

**Prereq.:** CMST 2600.

**CMST 5898M Seminar Global Seminar France 3 s.h.**

A cooperative exploration of topics in communication studies. May be repeated up to 6 s.h.

**Prereq.:** CMST 2600.

**CMST 6900 Introduction to Graduate Study 1 s.h.**

Orientation to teaching, learning, and research in the communication discipline for new graduate students.

**CMST 6945 Communication for the Classroom Teacher 3 s.h.**

The study of communication theory and practice appropriate for the prospective classroom teacher. Theories and application exercises focus on interpersonal communication, group communication, and classroom speaking.

**CMST 6950 Computer Mediated Communication Research 3 s.h.**

Theory, research, and application of CMC including examination of computer communication theories and relevant research methodologies, web design theory and critiques, blogging, podcasting, e-mailing, social media, multimedia storytelling. Design, implementation, and evaluation of CMC.

**CMST 6953 Group Dynamics: Theory and Research 3 s.h.**

Theory and research of group processes, critical thinking and creativity strategies, theory of group leadership and teamwork, conflict management and mediation, advanced group decision-making and problem solving, motivational strategies.

**CMST 6957 Organizational Communication Research 3 s.h.**

Applies theories of organizational communication to a chosen organization. Culminates with report and presentation.

**CMST 6970 Internship 3 s.h.**

Communication-related work in a non-academic professional setting.

**Prereq.:** Completion of the MA core courses.

**CMST 6980 Applied Research Methods 3 s.h.**

Introduction to and application of qualitative research methods relevant to business communication settings.

**CMST 6990 Measurement and Analysis 3 s.h.**

Research processes using social scientific, quantitative methodologies and practical experience in conducting research. Essential skill development in research design, measurement, data collection and data analysis.

**CMST 6991 Communication Problems: Independent Study 3 s.h.**

Individual study and practical application of communication research principles to various organizational, group and mediated communication problems.

**CMST 6994 Capstone 3 s.h.**

Applied research paper on a communication topic. Oral presentation required. For non-thesis option students only. Thesis option students should take CMST 6995: Thesis.

**Prereq.:** Completion of the MA core courses.

**CMST 6995 Thesis 1-6 s.h.**

Research study on an applied communication topic. Oral presentation required. Total of 6 s.h. required for the MA thesis option. For thesis option students only. Non-thesis option students should take CMST 6994: Capstone.

**Prereq.:** Completion of the MA core courses.

**JOUR 2600 Investigative Reporting Workshop 1 s.h.**

Students become part of a team of reporters. The program will identify one reporting project that will be the focus of this laboratory. The project will be reported until completion. Students are expected to participate in gathering and analyzing information and in the writing and/or production of stories. Repeatable for up to 3 s.h.

**JOUR 2602 Media Writing 3 s.h.**

Introduction to writing for the mass media. Development of writing techniques and examination of styles and approaches used in writing for various mass audiences. Fulfills requirement for Integrated Language Arts Middle Childhood teaching license.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**JOUR 2603 Journalism Ethics and Social Responsibilities 3 s.h.**

Examination of ethical standards and moral theories and their practical application in professional journalism through case studies. Students will learn to become active critics of media professionals.

**Gen Ed:** Arts and Humanities.

**JOUR 2605 Journalism as Literature 3 s.h.**

Examination of literary works by journalists. Study of journalism techniques transferred to literary storytelling.

**Gen Ed:** Arts and Humanities.

**JOUR 2622 News Reporting 1 3 s.h.**

Study of news reporting and writing, with emphasis on journalistic and AP style, development of news judgment, interviewing, and storytelling through traditional and new media. Coursework may require travel for reporting projects.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**JOUR 2624 Imaging and Design of Media 3 s.h.**

Focus on the use of photographs, graphics, tables, charts, and other visual products to convey messages. Includes study of basic visual literacy, design principles and technology. Crosslisted as ENGL 2624.

**JOUR 2626 American Journalism 3 s.h.**

The development of journalism in America, the role of the news media and its effects on American society, and special consideration of journalism as a tool of diversity and as a literary tradition.

**Prereq.:** Completion of ENGL 1550 with a "C" or better.

**JOUR 2632 Introduction to Photojournalism 3 s.h.**

The basics of photojournalism, including composition, lighting, editing, news judgment, and ethics.

**JOUR 3716 Introduction to Magazine Journalism 3 s.h.**

Focus on forces driving the magazine industry. Study of business models, freelancing, and writing for specialized audiences; includes basic feature writing and imaging techniques.

**Prereq.:** JOUR 2622 and JOUR 2624.

**JOUR 3717 Editorial and Opinion Writing 3 s.h.**

Techniques, approaches and practice in writing reviews, editorials, and opinion columns. Exercises in criticisms of the arts, editorial research, and editorial style.

**Prereq.:** JOUR 2622.

**JOUR 3720L Magazine Journalism Workshop 1 s.h.**

Working for campus publications to apply news gathering and reporting skills. Emphasis on organizational culture of magazines. Coursework may require travel for reporting projects. May be repeated for up to 3 s.h.

**Prereq.:** JOUR 3716 or consent of instructor.

**JOUR 3721L Journalism Workshop 3 s.h.**

Application of the principles of news reporting skills in student media. May be repeated once.

**Prereq.:** JOUR 2622.

**JOUR 3722L Radio News Workshop 3 s.h.**

Production of news and feature stories to be aired on radio; development of interview and media production skills for news. Coursework may require travel for reporting projects.

**Prereq.:** JOUR 2622.

**JOUR 3723 Advanced Journalism Editing and Design 3 s.h.**

Application of visual literacy and editing skills. Emphasis on editorial decision making, journalistic style editing, quantitative reasoning, fact-checking, and practice of traditional and multimedia design techniques.

**Prereq.:** JOUR 2622 and JOUR 2624.

**JOUR 3725 News Reporting 1 3 s.h.**

Study of news reporting and writing, with emphasis on journalistic and AP style, development of news judgment, interviewing, and storytelling through traditional and new media. Coursework may require travel for reporting projects.

**Prereq.:** completion of JOUR 2624 or ENGL 1551 with a grade of "C" or better.

**JOUR 3726 American Journalism 3 s.h.**

The development of journalism in America, the role of the news media and its effects on American society, and special consideration of journalism as a tool of diversity and as a literary tradition.

**Prereq.:** Completion of ENGL 1550 or JOUR 2624 with a C or better.

**JOUR 3758 Projects in Working Class Reporting 3 s.h.**

Collaboration with the Center for Working Class Studies. Emphasis on using journalistic techniques to cover issues important to working-class people. Coursework may require travel for projects.

**Prereq.:** ENGL 1551.

**JOUR 3759 Sports Journalism 3 s.h.**

Techniques of sports reporting with emphasis on game reporting, sports features, columns, photography and new media storytelling. Coursework may require travel for reporting projects.

**Prereq.:** JOUR 2622 or consent of instructor.

**JOUR 3760 News Reporting 2 3 s.h.**

Focus is on advanced news reporting and storytelling skills. Includes in-depth coverage of feature writing, investigative, and enterprise journalism. Coursework may require travel for reporting projects.

**Prereq.:** JOUR 2622.

**JOUR 3761 New Media Journalism 3 s.h.**

Focus on new trends and techniques of electronic news organizations. Emphasis on storytelling using multimedia and non-linear methods of delivery. Coursework may require travel for reporting projects.

**Prereq.:** JOUR 2622 and JOUR 2624.

**JOUR 3762 Political Reporting 3 s.h.**

Development of skills necessary to report, write, record, and publish stories about the American political system. Coursework may require travel for reporting projects.

**Prereq.:** JOUR 2622.

**JOUR 4821 Advising Student Media 3 s.h.**

Study of the role and responsibilities of the media advisor in high school and college. Topics include the unique legal and ethical concerns of student media, the training of student staff, the relationship of the student press to the academic administration, and publication-management concerns. Listed also as ENGL 4821.

**Prereq.:** JOUR 2622 or ENGL 3741.

**JOUR 4822 Magazine Writing and Reporting 3 s.h.**

Advanced study of writing and reporting techniques for magazine journalists. Emphasis on learning freelance skills, getting work published, and marketing yourself as a magazine writer. Coursework may require travel for reporting projects.

**Prereq.:** JOUR 3716.

**JOUR 4823 In-Depth Reporting 3 s.h.**

Emphasis on extended research, extensive interviewing and investigative reporting techniques. Coursework may require travel for reporting projects.

**Prereq.:** JOUR 3721L.

**JOUR 4824 Press Law and Ethics 3 s.h.**

Study of First Amendment rights of the press; examination of laws concerning libel, privacy, copyright, obscenity, censorship, open meetings and open records in Ohio; discussion of press responsibilities.

**Prereq.:** JOUR, 2622 or JOUR 3721L.

**JOUR 4825 Selected Topics in Journalism 3 s.h.**

Study of approaches to and special aspects of journalism not covered in depth in other journalism courses. May be repeated once with change of topic.

**Prereq.:** JOUR 2622 or JOUR 3721L.

**JOUR 4860 News Reporting 2 3 s.h.**

Focus is on advanced news reporting and storytelling skills. Includes in-depth coverage investigative, and enterprise journalism.

**Prereq.:** JOUR 3725.

**JOUR 4893 Journalism Senior Project 3 s.h.**

Capstone experience for journalism major. Individualized enterprise/investigative reporting projects with demonstration of advanced newsgathering techniques. Coursework may require travel for reporting projects.

**Prereq.:** Senior standing; and JOUR 3760 and JOUR 4824.

**Gen Ed:** Capstone.

**JOUR 4894 Journalism Internship 3 s.h.**

Supervised journalism work experience. Students complete 60 hours for each hour registered. Internship placement is selective. Coursework may require travel for reporting projects. May be repeated with the approval of the department chairperson for up to 6 hours.

**Prereq.:** JOUR 3760 and JOUR 3721L; senior standing, 2.5 GPA and permit.

**TCOM 1500 Orientation to Telecommunication Studies 1 s.h.**

Survey of University and Department programs, policies, practices and facilities with particular emphasis on needs of telecommunication studies majors. Creation of telecommunication studies portfolio materials and other aspects of the Telecommunication Studies program. To be taken prior to TCOM 2682 and TCOM 2683.

**TCOM 1510 Sports Field Production 1 1 s.h.**

Assignment to one or more production crews in conjunction with YSU Athletics and Horizon League Sports. Student responsibilities will be determined in light of skills and interests, as well as the production need. May be repeated.

**TCOM 1555L Radio Workshop 3 s.h.**

Application of the principles of radio production and broadcasting skills in student media.

**TCOM 1570 Elements of Sports Production and Law 3 s.h.**

A study of electronic media as business and social forces; also an overview of studio/OB production. Attention given to how media and sport industries grew as consorts into Sports Broadcasting. Basic legal considerations for sports broadcasters. The equivalent of 2 hours lecture and 2 hours field-based lab per week.

**TCOM 1580 Introduction to Telecommunication Studies 3 s.h.**

A survey course designed to familiarize students with the principles and practices involved in radio and television broadcasting, cable, and other electronic communication systems.

**TCOM 1581 Telecommunication Technologies 2 s.h.**

Operational principles of audio, data, and video telecommunication technologies. One hour lecture and two hours lab per week.

**TCOM 1595 Survey of American Mass Communications 3 s.h.**

A rhetorical examination of the development, operation, and function of radio, television, film, and print media in America. Television documentaries and films illustrate the implication of mass communication. Students examine how a person may be individually affected by mass communication.

**Gen Ed:** Social Science.

**TCOM 2610 Sports Field Production 2 1 s.h.**

Assignment to one or more production crews in conjunction with YSU Athletics and Horizon League Sports. Student responsibilities will be determined in light of skills and interests, as well as the production need. May be repeated.

**Prereq.:** TCOM 1510.

**TCOM 2682 Scriptwriting for Electronic Media 3 s.h.**

Fundamentals of telecommunication media writing with emphasis on the theory analysis and practices in the preparation of continuity, news, and documentaries.

**Prereq.:** TCOM 1570 or TCOM 1580; TCOM 1581; and ENGL 1550 with a grade of "C" or better in all.

**TCOM 2683 Media Operations and Performance 3 s.h.**

An introduction of practices and procedures basic to media production facilities. The equivalent of three hours lecture and two hours lab per week.

**Prereq.:** TCOM 1580 or TCOM 1570 and ENGL 1550 with a grade of "C" or better in both.

**TCOM 2684 Broadcast News Practices 3 s.h.**

Organization, preparation, and presentation of radio and television news programs. Includes study of journalistic requirements of broadcast media and broadcast newsroom operation. The equivalent of three hours lecture and two hours lab per week.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both.

**TCOM 2685 Studio Operations 1 1 s.h.**

A supervised application of operations and performance skills to audio and/or video programming. Repeatable to a maximum of 2 s.h.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both.

**TCOM 3710 Sports Field Production 3 1 s.h.**

Assignment to one or more production crews in conjunction with YSU Athletics and Horizon League Sports. Student responsibilities will be determined in light of skills and interests, as well as the production need. May be repeated.

**Prereq.:** TCOM 2610.

**TCOM 3780 Principles and Practices of Media Announcing 3 s.h.**

A study of the announcer's role in electronic mass media. Examination of theories, techniques, and major styles of media announcing. Three hours lecture, two or more hours of individualized lab per week.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both; major in Telecommunication Studies.

**TCOM 3781 Audio Production 3 s.h.**

Study of the concepts of audio production, including student production of various types of programs. The equivalent of three hours lecture and two hours lab per week.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both; major in Telecommunication Studies.

**TCOM 3782 Video Production 1 3 s.h.**

Study of studio production elements such as equipment, lighting, scene design, graphics, and special effects. The equivalent of three hours lecture and two hours lab per week.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both; major in Telecommunication Studies.

**TCOM 3783 Telecommunications Regulation 3 s.h.**

Responsibilities of electronic media communicators as prescribed by law and administrative agency policies, and court decisions. Analysis of the regulatory environment of broadcasters, common carriers, and cable.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both; major or minor in Telecommunication Studies.

**TCOM 3784 Telecommunication Programming 3 s.h.**

A study of contemporary broadcast and cable programming, including development, scheduling, and competitive strategies.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both; major or minor in Telecommunication Studies.

**TCOM 3785 Studio Operations 2 1 s.h.**

Individual projects or assignments in planning, coordinating and assessing production and programming related to studio procedures.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both; acceptance of project Proposal Form by coordinating faculty member and department chairperson.

**TCOM 3786 Video Production 2 3 s.h.**

Study and application of television production elements and editing. Production values of composition, transition, and sequence explored from a communication perspective. Students produce field-based productions. Three hours lecture, two hours lab.

**Prereq.:** TCOM 3782.

**TCOM 3787 Practicum in Telecommunication 1-3 s.h.**

Individual study and practical application of communication principles to various telecommunication problems. Repeatable to a maximum of 6 s.h.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both.

**TCOM 3788 Professional Residency 2 s.h.**

Professional telecommunication-related experience under direction of University faculty members and employees of firms participating in the residency program. The student is responsible for securing the professional residency with assistance of Telecommunication Studies program faculty.

**Prereq.:** TCOM major, junior standing.

**TCOM 3789 Electronic Media Interviewing 3 s.h.**

A study and application of interviewing and reporting techniques, emphasizing the local news interview and public affairs reporting. The equivalent of three hours lecture and two hours lab per week.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both.

**TCOM 3790 Broadcast News Lab 3 s.h.**

Study and lab in news programs for TV, radio and web. Requirements of broadcast media and newsroom operation. Students create the weekly webcast, Light the Wick, or similar content. Two hours lecture and two hours lab per week.

**Prereq.:** JOUR 2622 or TCOM 2682 or TCOM 2683.

**TCOM 3791 Electronic Media Sales and Promotion 3 s.h.**

An examination of the principles and practices of selling electronic media. Analysis of rating-based sales and promotion strategies, as well as relations with agencies and station representatives. The equivalent of three hours lecture and two hours lab per week.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both.

**TCOM 3792 Broadcast Sports Producing and Writing 3 s.h.**

A study of the fundamentals of producing broadcast sports media content, including script development and line producing.

**Prereq.:** TCOM 1570, TCOM 2682, TCOM 2683 with a grade of "C" or better.

**TCOM 3793 Broadcast Sports Performance 3 s.h.**

Students receive instruction on play-by-play announcing and on the preparation and extemporaneous discussion of player and team statistics as well as other appropriate sports-related information. Skills for conducting media interviews.

**Prereq.:** TCOM 1570, TCOM 2682, TCOM 2683.

**TCOM 3794 Cross-platform Sports Broadcasting 3 s.h.**

Examination of and instruction in new media technologies to deliver sports media content. Emphasis on how the interactive nature of online content changes traditional notions of presentation and distribution.

**Prereq.:** TCOM 1570, TCOM 2682, TCOM 2683.

**TCOM 3795 Sports Media Production 1 3 s.h.**

Theory and practice of remote radio and television sports production for volleyball, soccer, and baseball. Students produce and direct coverage of sporting events. Meets equivalent of 2 hours lecture plus 4 hours field lab per week. May be repeated once.

**Prereq.:** TCOM 1570, TCOM 2682, TCOM 2683.

**TCOM 4850 Advanced Audio/Video Production and Editing 3 s.h.**

Advanced techniques and procedures in audio/video production. Techniques include digital editing and video post-production procedures. Recognize current video and audio technology and how to troubleshoot problems associated with such technology.

**Prereq.:** TCOM 3781 or TCOM 3782 with a grade of "C" or better.

**TCOM 4881 Telecommunication Management 3 s.h.**

A study of the relationships of communication management with government, networks, ownership and other groups. Organization and procedures of typical units; common planning models.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both; major or minor in Telecommunication Studies.

**TCOM 4882 Studio Operations Management 3 2 s.h.**

Advanced individual projects or assignments in planning, coordinating and assessing production and programming related to studio procedures. Repeatable for a maximum of 4 s.h..

**Prereq.:** TCOM 3785; acceptance of Project Proposal Form by coordinating faculty member and department chairperson.

**TCOM 4884 Video Production Direction 3 s.h.**

A study and application of the communication roles and skills associated with video directing. Emphasis on audience analysis. The equivalent of three hours lecture and two hours lab per week.

**Prereq.:** TCOM 3782.

**TCOM 4885 Developments in Telecommunication Media 3 s.h.**

Study and application of uses of telecommunication media apart from commercial broadcasting. Study of new technologies and their potential.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both.

**TCOM 4886 Audience and Market Measure 3 s.h.**

Methods of collecting, analyzing, and using information about media markets. Includes quantitative and non-quantitative techniques.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both.

**TCOM 4887 Theories and Criticisms of Telecommunication 3 s.h.**

Study of contemporary theories and research in telecommunication.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both; major or minor in Telecommunication Studies.

**TCOM 4888 Internship Telecommunication 3 s.h.**

An application of telecommunication theory and practices within organizations primarily concerned with telecommunication. Students are selected on the basis of special qualifications, including GPA, courses taken, and competitive interview. Enrollment is contingent on the availability of internship positions. Twenty hours a week.

**Prereq.:** Junior standing in telecommunications and permission of internship coordinator.

**TCOM 4889 Broadcast Sports Internship 3 s.h.**

An application of sports media theory and practices within sports and sports media organizations such as university, semi-professional and professional organizations.

**Prereq.:** TCOM 1570, TCOM 3792, TCOM 3793, TCOM 3794, and TCOM 3795; selection by sponsoring organization.

**TCOM 4890 Producing Broadcast News 3 s.h.**

Supervision of news programs for TV, radio and web. Story development, shooting/editing, script management, graphics creation, studio operations, and on-camera performance. Creation and marketing of the webcast, Light the Wick, or equivalent. Two hours lecture and two hours lab per week.

**Prereq.:** TCOM 3790.

**TCOM 4897 Seminar in Telecommunication 3 s.h.**

Designed to investigate contemporary aspects of telecommunications. May be repeated for credit if topic is different.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both; major in Telecommunication Studies.

**TCOM 4897J Seminar in Telecommunication Audio Drama for Public Performance 3 s.h.**

Designed to investigate contemporary aspects of telecommunications. May be repeated for credit if topic is different.

**Prereq.:** TCOM 2682 and TCOM 2683 with a grade of "C" or better in both; major in Telecommunication Studies.

**TCOM 4899 Capstone 2 s.h.**

Students demonstrate mastery of knowledge in a variety of degree assessment areas. Students prepare and present a portfolio of their work. The course assists students in assembling and presenting the portfolio to department faculty and other interested parties. To be taken after achieving senior status as a Telecommunications Studies major.

**Prereq.:** senior status in Telecommunication Studies.

**Gen Ed:** Capstone.

## Bachelor of Arts in Communication Studies, Interpersonal/Organizational Track

### Overview

Our combination of interpersonal and organizational courses provides students with practical skills relevant to traditional and emerging workplace settings as well as personal skills that employers value highly.

Interpersonal communication courses introduce one-to-one communication behaviors and the impact of those behaviors on personal relationships. Through a blend of theory and practice, students are encouraged to develop confidence and ability as ethical communicators; to view communication events from multiple perspectives; to understand the multicultural character of communication in contemporary society; to analyze and evaluate variables operating in verbal transactions; and to probe the basic problems of human communication in order to understand self, others, and events.

The organizational communication courses enable you to not only increase your understanding of communication and its impact on complex organizations, but also to enhance your effectiveness as a member of various organizations. Organizational communication courses within this track focus on a plethora of skills which will allow you to hone your abilities as a communicator in the business context and guide you through society's changing career demands.

This track includes skills you will need for success in various interviewing scenarios. By learning employee, performance and persuasive interviewing skills, you will be more adept at seeking the proper job, meeting a client's needs, and performing more effectively within an organization. Enacting problem-solving techniques, adapting to different conflict management styles, learning group member roles, trying on different leadership styles, recognizing and adapting to changing organizational cultures, and learning about effective superior-subordinate communication styles are but a few of the skills you will acquire which will also enhance the success of both you and your organization in classes such as organizational cultures (CMST 4859) and conflict management and negotiation (CMST 5852). Organizational communication courses provide you with an abundance of applicable skills which will transcend the various positions, stages of employment, and organizational types you may experience in today's dynamic job market.

This track also includes courses which will expand your interpersonal skills. These courses include intercultural communication (CMST 2610) and gender communication (CMST 3750). Intercultural communication focuses on the application of theory and research about intercultural communication to provide you with an intellectual framework that allows the description and understanding of communication between culturally heterogeneous individuals. It also helps you to develop communication skills that improve competence in intercultural communication situations. In the gender communication course, you will learn concepts and issues of femininity and masculinity as they apply to communication between and among genders in a variety of contexts.

### Possible Careers

- Human resource specialist
- Graduate programs (masters, doctoral degree)

- Training and development specialist
- Internal communication specialist
- Organizational training & development
- Labor negotiator/recruiter
- Section/branch manager
- Regional manager
- Store manager
- Product buyer
- Community affairs coordinator
- Government affairs coordinator
- Account representative
- Retail salesperson
- Real estate salesperson
- Insurance salesperson
- Career development specialist
- Business analyst
- Corporate communications manager
- Student advising/recruitment

## Complementary Minors

- Accounting
- Business
- Languages
- General Sociology
- Human Geography
- Human Resources
- Social Work
- Loss Prevention & Asset Protection
- Management Information Systems
- Nonprofit Leadership
- Professional Ethics
- Psychology
- Social Institutions

Students majoring in communication studies must successfully complete all core courses and one of the specified tracks for a total of 39 semester hours in CMST. Students must complete 18 credits of 3000- and 4000-level courses in the CMST major. Students must also complete all requirements for a Bachelor of Arts degree, including the completion of an approved academic minor.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement (e.g., MATH 2623, STAT 2625)		
Arts and Humanities		6
Natural Science		7
Social Science		6
Social and Personal Awareness		6
General Education Elective or First Year Experience Course (e.g., CCAC 1500)		3
FNLG 1550	Elementary Foreign Language	4
FNLG 2600	Intermediate Foreign Language	4
<b>Major Requirements</b>		
CMST 2600	Communication Theory	3
CMST 2630	Social Media Literacy	3

CMST 2655	Communication in Groups and Organizations	3
CMST 2656	Interpersonal Communication	3
CMST 3700	Designing Communication Research	3
CMST 4899	Senior Project	3
<b>Interpersonal/Organizational Track</b>		
CMST 2610	Intercultural Communication	3
CMST 3750	Gender Communication	3
CMST 3756	Interviewing	3
CMST 4850	Social Media Campaigns	3
CMST 4855	Interpersonal Communication Relationships	3
CMST 4859	Organizational Cultures	3
CMST 5852	Conflict Management and Negotiation	3
<b>Electives (note that students must complete 48 hours of upper division courses; 37xx and above)</b>		15
<b>Minor Requirements (note that some minors require more than 18 credits)</b>		18
<b>Total Semester Hours</b>		<b>120</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
ENGL 1550	Writing 1	3
MATH XXXX Approved General Education		3
AH XXXX GER Arts & Humanities		3
NS XXXX Natural Science GER + lab		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
CMST 2600	Communication Theory	3
CMST 2630	Social Media Literacy	3
CMST 2656	Interpersonal Communication	3
ENGL 1551	Writing 2	3
SPA XXXX GER Social & Personal Awareness		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
CMST 2655	Communication in Groups and Organizations	3
Minor Course		3
SPA XXXX GER Social & Personal Awareness		3
NS XXXX GER Natural Science		3
FNLG 1550	Elementary Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
CMST 2610	Intercultural Communication	3
Minor Course		3
AH XXXX Arts & Humanities GER		3
SS XXXX Social Sciences GER		3
FNLG 2600	Intermediate Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
CMST 3700	Designing Communication Research	3
CMST 3750	Gender Communication	3
Minor Course		3
SS XXXX GER Social Sciences		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>15</b>



<b>Spring</b>		
CMST 3756	Interviewing	3
CMST 4855	Interpersonal Communication Relationships	3
Minor Course		3
Upper-division General Elective		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
CMST 4850	Social Media Campaigns	3
CMST 4859	Organizational Cultures	3
Upper-division Minor course		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>12</b>
<b>Spring</b>		
CMST 4899	Senior Project	3
CMST 5852	Conflict Management and Negotiation	3
Upper-division Minor course		3
Upper-division General Elective		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

## LEARNING OUTCOMES

Regardless of track, students graduating with a B.A. degree in communication studies will:

- differentiate between key theories and concepts in communication
- find, interpret, evaluate, and synthesize academic research in communication studies
- demonstrate verbal and nonverbal competence

Students completing their degree in communication studies are uniquely qualified to enter the job market and compete effectively throughout their careers for advancement and promotion.

Through course offerings and applied learning experiences, the communication studies program combines a rich liberal arts emphasis with a much needed specialized professional and career focus for undergraduate students.

# Bachelor of Arts in Communication Studies, Media Track

## Overview

Our Media Track was developed in conjunction with new courses in media relations writing, media relations campaigns, and media analysis. The goal of this track is to provide students with practical, hands-on experience with media relations applications and strategies, new media technologies, and current and emerging mass communication practices. This track provides professional skills in media management and public relations. You will be introduced to old and new technologies as well as more challenging issues related to research of new communication technologies.

Media analysis (CMST 4898) will teach you to critically analyze media messages; explore how political, social, and economic forces affect media messages; and discuss how media content affects media users. In media relations writing (CMST 3757) and media relations campaigns (CMST 3717), you will learn how to write press releases and ad content for different types of media and how to plan and implement a public relations, marketing, and advertising campaign using a variety of mass media outlets. Because media

relations campaigns and information technology skills are often applied in business settings, you will take a course in organizational cultures (CMST 4859) to prepare you to use your media skills in diverse organizational settings.

## Possible Careers

- Advertising
- Agent (e.g., sports, entertainment)
- Web Designer/Director
- Writer
- Community Relations
- News Service Researcher
- Public Relations Manager
- Market Research
- Information Management
- Media Buyer/Ad Sales
- Audience/Media Research

## Complementary Minors

- Advertising/Public Relations
- Art & Technology
- Language
- Graphic Design
- Information Systems Programming
- Integrated Technologies
- Journalism
- Management Information Systems
- Marketing
- Multimedia and Web Design
- Photography
- Professional and Technical Writing
- Telecommunication Studies

Students majoring in communication studies must successfully complete all core courses and one of the specified tracks for a total of 39 semester hours in CMST. Students must complete 18 credits of 3000- and 4000-level courses in the CMST major. Students must also complete all requirements for a Bachelor of Arts degree, including the completion of an approved academic minor.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement (e.g., MATH 2623, STAT 2625)		
Arts and Humanities		6
Natural Science		7
Social Science		6
Social and Personal Awareness		6
General Education Elective or First Year Experience Course (e.g., CCAC 1500)		3
Foreign Language 1550		4
Foreign Language 2600		4
<b>Major Requirements</b>		
CMST 2600	Communication Theory	3
CMST 2630	Social Media Literacy	3
CMST 2655	Communication in Groups and Organizations	3

CMST 2656	Interpersonal Communication	3
CMST 3700	Designing Communication Research	3
CMST 4899	Senior Project	3
<b>Media Track</b>		
CMST 3717	Intro to Media Relations Campaigns	3
CMST 3756	Interviewing	3
CMST 3757	Media Relations Writing	3
CMST 4850	Social Media Campaigns	3
CMST 4851	New Communication Media	3
CMST 4859	Organizational Cultures	3
CMST 4898	Media Analysis	3
<b>Minor Requirements (note that some minors require more than 18 credits)</b> 18		
<b>Electives (note that students must complete 48 hours of upper division courses; 37xx and above)</b> 15		
<b>Total Semester Hours</b>		<b>120</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
ENGL 1550	Writing 1	3
MATH XXXX	Approved General Education	3
AH XXXX	Arts & Humanities	3
NS XXXX	Natural Science GER + lab	4
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
CMST 2600	Communication Theory	3
CMST 2630	Social Media Literacy	3
CMST 2656	Interpersonal Communication	3
ENGL 1551	Writing 2	3
SPA XXXX	GER Social & Personal Awareness	3
<b>Semester Hours</b>		<b>15</b>

<b>Year 2</b>		
<b>Fall</b>		
CMST 2655	Communication in Groups and Organizations	3
Minor Course		3
SPA XXXX	GER Social & Personal Awareness	3
NS XXXX	GER Natural Science	3
Foreign Language 1550		4
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
CMST 3756	Interviewing	3
Minor Course		3
AH XXXX	GER Arts & Humanities	3
SS XXXX	GER Social Sciences	3
Foreign Language 2600		4
<b>Semester Hours</b>		<b>16</b>

<b>Year 3</b>		
<b>Fall</b>		
CMST 3700	Designing Communication Research	3
CMST 3717	Intro to Media Relations Campaigns	3
CMST 4859	Organizational Cultures	3
SS XXXX	Social Sciences GER	3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
CMST 3757	Media Relations Writing	3

CMST 4898	Media Analysis	3
Minor Course		3
Minor Course		3
GER XXXX	General Education Elective	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
CMST 4850	Social Media Campaigns	3
CMST 4851	New Communication Media	3
Upper-division Minor course		3
Upper-division General Elective		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CMST 4899	Senior Project	3
Upper-division Minor course		3
Upper-division General Elective		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>120</b>

## LEARNING OUTCOMES

Regardless of track, students graduating with a B.A. degree in communication studies will:

- differentiate between key theories and concepts in communication
- find, interpret, evaluate, and synthesize academic research in communication studies
- demonstrate verbal and nonverbal competence

Students completing their degree in communication studies are uniquely qualified to enter the job market and compete effectively throughout their careers for advancement and promotion.

Through course offerings and applied learning experiences, the communication studies program combines a rich liberal arts emphasis with a much needed specialized professional and career focus for undergraduate students.

# Bachelor of Arts in Communication Studies, Persuasion Track

## Overview

Our Persuasion Track is designed for students interested in careers that involve a great deal of personal interaction and influence. Courses of instruction will deepen your understanding of argumentation, persuasive techniques, public speaking, and help you improve your knowledge and skills in intercultural and social media contexts.

Courses on this track include the core communication courses as well as intercultural communication, presentational speaking, interviewing, argumentation, persuasion, social media campaigns, and new communication media. Classes in presentational speaking, argumentation, and persuasion will develop your public speaking skills beyond the basic skills learned in CMST 1545. Social media and new communication media will prepare you for advancements in communication specifically related to the use of new media for persuasion.

In addition to learning how to present ideas effectively in person-to-person and mediated contexts, students also learn skills relevant to persuading people and developing arguments, which will prove to be essential in careers in sales, customer service/relations, marketing and/or advertising. In intercultural

communication, students will learn how to effectively adapt to culturally diverse audiences when preparing and delivering persuasive messages.

This degree prepares students for several career paths (see below), but also leads students to advanced areas of study. For example, graduate study in communication will prepare you for a life of research and teaching in areas such as argumentation (and debate), persuasion, and public speaking. Students who choose this track are often prepared for a Master's in Business Communication (MBA). The MBA, coupled with a B.A. degree in communication studies with an emphasis on persuasion, is useful in many industries, especially the corporate setting. The persuasion track will prepare you for law school, or for public service in government and politics. Other students may choose this track in preparation for divinity school which, in turn, can lead to a career as a religious leader. Additionally, students who earn a communication degree with an emphasis on persuasive skills are qualified for many sales and marketing positions.

## Possible Careers

- Speech Writer
- Political Consultant
- Political Debate Coach
- Political Analyst
- Public Relations
- Advertising
- Lobbyist
- Commentator
- Consumer Advocate
- Press Secretary
- Book Publicist
- Campaign Manager
- Community Relations
- Ministry
- Legislator
- Motivational Speaker
- Account Representative
- Communication Consultant
- Forensics Coach
- Fundraiser
- Spokesperson
- Lawyer
- Business-to-Business Sales

## Complementary Minors

- Political Science
- Journalism
- Marketing
- Advertising/Public Relations
- Psychology
- Criminal Justice
- Human Geography
- Nonprofit Leadership
- Social Institutions
- Public Administration
- Telecommunication Studies
- Foreign Affairs

Students majoring in communication studies must successfully complete all core courses and one of the specified tracks for a total of 39 semester hours in CMST. Students must complete 18 credits of 3000- and 4000-level courses in

the CMST major. Students must also complete all requirements for a Bachelor of Arts degree, including the completion of an approved academic minor.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement (e.g., MATH 2623, STAT 2625)		
Arts and Humanities		6
Natural Science		7
Social Science		6
Social and Personal Awareness		6
General Education Elective or First Year Experience Course (e.g., CCAC 1500)		3
Foreign Language 1550		4
Foreign Language 2600		4
<b>Major Requirements</b>		
CMST 2600	Communication Theory	3
CMST 2630	Social Media Literacy	3
CMST 2655	Communication in Groups and Organizations	3
CMST 2656	Interpersonal Communication	3
CMST 3700	Designing Communication Research	3
CMST 4899	Senior Project	3
<b>Persuasion Track</b>		
CMST 2610	Intercultural Communication	3
CMST 2645	Presentational Speaking	3
CMST 3754	Argumentation	3
CMST 3756	Interviewing	3
CMST 4850	Social Media Campaigns	3
CMST 4851	New Communication Media	3
CMST 5860	Persuasion and New Media	3
<b>Minor Requirements (note that some minors require more than 18 credits)</b>		18
<b>Electives (note that students must complete 48 hours of upper division courses; 37xx and above)</b>		15
<b>Total Semester Hours</b>		<b>120</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
ENGL 1550	Writing 1	3
MATH XXXX	Approved General Education	3
AH XXXX	Arts & Humanities	3
NS XXXX	Natural Science GER + lab	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
CMST 2600	Communication Theory	3
CMST 2630	Social Media Literacy	3
CMST 2656	Interpersonal Communication	3
ENGL 1551	Writing 2	3
SPA XXXX	GER Social & Personal Awareness	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
CMST 2655	Communication in Groups and Organizations	3
CMST 2645	Presentational Speaking	3

SPA XXXX GER Social & Personal Awareness		3
NS XXXX GER Natural Science		3
FNLG 1550	Elementary Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
CMST 2610	Intercultural Communication	3
Minor Course		3
AH XXXX GER Arts & Humanities		3
SS XXXX GER Social Sciences		3
FNLG 2600	Intermediate Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
CMST 3700	Designing Communication Research	3
Minor course		3
Upper-division Minor course		3
SS XXXX GER Social Sciences		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CMST 3754	Argumentation	3
CMST 3756	Interviewing	3
Upper-division Minor course		3
GER XXXX General Education Elective		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
CMST 4850	Social Media Campaigns	3
CMST 4851	New Communication Media	3
Upper-division Minor course		3
Upper-division General Elective		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CMST 4899	Senior Project	3
CMST 5860	Persuasion and New Media	3
Upper-division Minor course		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>120</b>

## LEARNING OUTCOMES

Regardless of track, students graduating with a B.A. degree in communication studies will:

- differentiate between key theories and concepts in communication
- find, interpret, evaluate, and synthesize academic research in communication studies
- demonstrate verbal and nonverbal competence

Students completing their degree in communication studies are uniquely qualified to enter the job market and compete effectively throughout their careers for advancement and promotion.

Through course offerings and applied learning experiences, the communication studies program combines a rich liberal arts emphasis with

a much needed specialized professional and career focus for undergraduate students.

# Bachelor of Arts in Communication Studies, Social Media Track

## Overview

Social media management requires a unique set of skills that take students far beyond traditional communication and media production proficiency. However, our social media track does more than just prepare graduates to competently use leading social media platforms like Facebook, Twitter, and Instagram. Beyond learning the general functionality of social media, students learn to employ ethical standards for communicating with social media while applying their own moral standards. Students on this track explore the dangers of social media, and the importance of setting social media policies for the workplace.

With the appropriate support courses and possible minor options, the social media track prepares students for communicating and marketing with social media, including effective use of interactive designs. Students can learn to examine the social press and how to share client and personal expertise and experiences with the online world, how to use social tools for collaborative work, and how to distinguish the characteristics and methods, advantages and pitfalls, of virtual communities, social photos and videos, collective intelligence, crowd-sourcing, social production, and wiki collaboration.

## Possible Careers

- Communications Director
- Consumer Media Experience
- Content Marketing Manager
- Digital and Social Media Strategist
- Digital and Social Analytics
- Internet Marketing Director
- Multimedia and Content Producer
- Online Community Manager
- Public Relations Manager
- Social Influencer Manager
- Social Media Manager, Producer
- Social Media Sales

## Complementary Minors

- Advertising and Public Relations
- Business
- Computer Databases
- Computer Networking
- Computer Science
- Creative Writing
- Digital Media
- Electronic Commerce Tech
- Entrepreneurship
- Graphic Design
- Interactive Design
- Journalism
- Management
- Marketing
- Multimedia and Web Design
- Multimedia and Specialty Reporting
- Nonprofit Leadership
- Photography

- Professional Writing and Editing
- Telecommunication Studies
- Web Communications

Students majoring in communication studies must successfully complete all core courses and one of the specified tracks for a total of 39 semester hours in CMST. Students must complete 18 credits of 3000- and 4000-level courses in the CMST major. Students must also complete all requirements for a Bachelor of Arts degree, including the completion of an approved academic minor.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement (e.g., MATH 2623, STAT 2625)		
Arts and Humanities		6
Natural Science		7
Social Science		6
Social and Personal Awareness		6
General Education Elective or First Year Experience Course (e.g., CCAC 1500)		3
Foreign Language 1550		4
Foreign Language 2600		4
<b>Major Requirements</b>		
CMST 2600	Communication Theory	3
CMST 2630	Social Media Literacy	3
CMST 2655	Communication in Groups and Organizations	3
CMST 2656	Interpersonal Communication	3
CMST 3700	Designing Communication Research	3
CMST 4899	Senior Project	3
<b>Social Media Track</b>		
JOUR 2624	Imaging and Design of Media	3
CMST 3717	Intro to Media Relations Campaigns	3
CMST 3740	Social Media Communication	3
CMST 3757	Media Relations Writing	3
CMST 4850	Social Media Campaigns	3
CMST 4851	New Communication Media	3
CMST 5860	Persuasion and New Media	3
<b>Minor Requirements (note that some minors require more than 18 credits)</b>		18
<b>Electives (note that students must complete 48 hours of upper division courses; 37xx and above)</b>		15
<b>Total Semester Hours</b>		<b>120</b>
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
ENGL 1550	Writing 1	3
MATH XXXX	Approved General Education	3
AH XXXX	Arts & Humanities	3
NS XXXX	Natural Science GER + lab	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
CMST 2600	Communication Theory	3
CMST 2630	Social Media Literacy	3
CMST 2656	Interpersonal Communication	3
ENGL 1551	Writing 2	3

SPA XXXX	GER Social & Personal Awareness	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
CMST 2655	Communication in Groups and Organizations	3
Minor Course		3
SPA XXXX	GER Social & Personal Awareness	3
NS XXXX	GER Natural Science	3
FNLG 1550	Elementary Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
JOUR 2624	Imaging and Design of Media	3
Minor Course		3
AH XXXX	GER Arts & Humanities	3
SS XXXX	GER Social Sciences	3
FNLG 2600	Intermediate Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
CMST 3700	Designing Communication Research	3
CMST 3717	Intro to Media Relations Campaigns	3
CMST 3740	Social Media Communication	3
SS XXXX	GER Social Sciences	3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CMST 3757	Media Relations Writing	3
CMST 4850	Social Media Campaigns	3
Minor Course		3
Upper-division Minor Course		3
GER XXXX General Education Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
CMST 4851	New Communication Media	3
Upper-division Minor course		3
Upper-division General Elective		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>12</b>
<b>Spring</b>		
CMST 4899	Senior Project	3
CMST 5860	Persuasion and New Media	3
CMST XXXX Upper-division Elective		3
Upper-division Minor course		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

## LEARNING OUTCOMES

Regardless of track, students graduating with a B.A. degree in communication studies will:

- differentiate between key theories and concepts in communication
- find, interpret, evaluate, and synthesize academic research in communication studies
- demonstrate verbal and nonverbal competence

Students completing their degree in communication studies are uniquely qualified to enter the job market and compete effectively throughout their careers for advancement and promotion.

Through course offerings and applied learning experiences, the communication studies program combines a rich liberal arts emphasis with a much needed specialized professional and career focus for undergraduate students.

## Bachelor of Arts in Journalism

The B.A. in Journalism track in broadcast and digital media prepares students for entry-level positions in media production, reporting and writing. The curriculum offers a blend of courses from journalism and telecommunications to support this goal. Course will focus on writing and reporting, video production, professional practices and legal issues. Students are encouraged to build a strong publication and production portfolio by working for our award winning campus media outlets which include The Jambar, the *Penguin Review*, the *\*yo magazine* (<http://www.thejambar.com/category/yo-magazine>), *The Jenny*, **Rookery Radi** (<http://www.rookeryradio.com>), and **thejambar.com**. Internships and opportunities are available at local and national media outlets. Additionally, Journalism majors on the broadcast and digital media track are encouraged to declare minors that support their specific career objectives, and allow them to develop complementary skills and knowledge (students on this track are prohibited from minoring in telecommunication studies because of the wide overlap in requirements). Students who are interested in pursuing a career in writing or print journalism should explore the B.A. Journalism.

## Complementary Minors

- Advertising and Public Relations
- American Politics
- Business
- Communication Studies
- Creative Writing
- Criminal Justice System or Juvenile Justice System
- Digital Media or Graphic Design (for Non-Art Majors)
- Economics
- Entrepreneurship
- Marketing
- Multimedia and Web Design
- Photography (for Non-Art Majors)
- Professional and Technical Writing
- Public Health
- Social Media Campaigns
- Statistics
- Web Communications

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	

Mathematics Requirement (e.g., MATH 2623, STAT 2625)		
Arts and Humanities		6
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective or First-Year Experience Course (e.g., CCAC 1500)		3
Foreign Language 1550		4
Foreign Language 2600		4
<b>Required Core Courses</b>		
JOUR 2622	News Reporting 1	3
JOUR 2624	Imaging and Design of Media	3
JOUR 2626	American Journalism	3
JOUR 3721L	Journalism Workshop	3
JOUR 3723	Advanced Journalism Editing and Design	3
JOUR 3760	News Reporting 2	3
JOUR 4824	Press Law and Ethics	3
JOUR 4893	Journalism Senior Project	3
<b>Electives</b>		
Select 12 s.h. from the following: <sup>1</sup>		12
JOUR 2605	Journalism as Literature (WR/MG/JS)	
JOUR 2632	Introduction to Photojournalism (WR/MG/E/JS)	
JOUR 3716	Introduction to Magazine Journalism (MG/JS)	
JOUR 3717	Editorial and Opinion Writing (WR/E/JS)	
JOUR 3720L	Magazine Journalism Workshop (MG/JS)	
JOUR 3722L	Radio News Workshop (WR/E/JS)	
JOUR 3758	Projects in Working Class Reporting (MG/JS)	
JOUR 3759	Sports Journalism (WR/E/JS)	
JOUR 3761	New Media Journalism (WR/E/JS)	
JOUR 3762	Political Reporting (WR/E/JS)	
JOUR 4822	Magazine Writing and Reporting (MG/JS)	
JOUR 4823	In-Depth Reporting (WR/MG/JS)	
JOUR 4825	Selected Topics in Journalism (WR/MG/E/JS)	
JOUR 4894	Journalism Internship (WR/MG/E/JS repeatable up to 6 s.h.)	
<b>Required Support Courses</b>		
CMST 3756	Interviewing	3
CMST 4850	Social Media Campaigns	3
<b>Elective Support Courses</b>		
Select two of the following:		6
ENGL 3740	Advanced Writing	
ENGL 3743	Professional and Technical Writing	
ENGL 3745	Writing for Online Environments	
ENGL 4849	Professional and Technical Editing	
ENGL 4850	Sociolinguistics	
ENST 2600	Foundations of Environmental Studies	
POL 3702	Law and Society	
POL 3714	American Public Opinion	
POL 3722	State and Local Government	
TCOM 1580	Introduction to Telecommunication Studies	
CSIS 1510	Global Electronic Information Resources	
ACCT 2602	Financial Accounting	
CMST 2600	Communication Theory	
CJFS 2601	Policing	
CJFS 2602	Criminal Courts	
STAT 2601	Introductory Statistics	
<b>Minor Requirements (some minors require more than 18 credits)</b>		18

<b>Electives (students must complete 48 hours of upper division courses; 37xx and above)</b>	6	AH XXXX Arts & Humanities GER	3
		NS XXXX Natural Science GER	3
		SS XXXX Social Sciences GER	3
<b>Total Semester Hours</b>	<b>120</b>		

- <sup>1</sup> Be sure to choose those that are appropriate for your selected option.
- WR indicates class suitable for writing/reporting option,
  - MG indicates class suitable for magazine option,
  - E indicates class suitable for electronic option,
  - JS indicates classes suitable for the journalism studies option.

## Curriculum for Journalism Majors Entering the Program Before Fall 2012

The Journalism BA requires students to take all of the following courses:

COURSE	TITLE	S.H.
JOUR 2622	News Reporting 1	3
JOUR 2626	American Journalism	3
JOUR 3716	Introduction to Magazine Journalism	3
JOUR 3717	Editorial and Opinion Writing	3
JOUR 3721L	Journalism Workshop	3
JOUR 3723	Advanced Journalism Editing and Design	3
JOUR 3760	News Reporting 2	3
JOUR 4824	Press Law and Ethics	3
ENGL 3743	Professional and Technical Writing	3
ENGL 4849	Professional and Technical Editing	3
ENGL 4898	Professional and Technical Writing Internship	3
ENGL 4899	Professional and Technical Writing Senior Project	3
<b>Total Semester Hours</b>		<b>36</b>

Please see your advisers for help with scheduling.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
JOUR 2624	Imaging and Design of Media	3
CCAC 1500	College Success	3
ENGL 1550	Writing 1	3
FNLG 1550	Elementary Foreign Language	4
MATH XXXX	Approved General Education	3
	<b>Semester Hours</b>	<b>16</b>

<b>Spring</b>		
JOUR 2626	American Journalism	3
CMST 1545	Communication Foundations	3
ENGL 1551	Writing 2	3
FNLG 2600	Intermediate Foreign Language	4
AH XXXX GER	Arts & Humanities	3
	<b>Semester Hours</b>	<b>16</b>

<b>Year 2</b>		
<b>Fall</b>		
JOUR 2622	News Reporting 1	3
JOUR Elective	(see Journalism Electives list below)	3
Minor course		3
NS XXXX	Natural Science GER + lab	4
SPA XXXX GER	Social & Personal Awareness	3
	<b>Semester Hours</b>	<b>16</b>

<b>Spring</b>		
JOUR 3721L	Journalism Workshop	3
Minor course		3

**Semester Hours 15**

### Year 3

#### Fall

JOUR 3723	Advanced Journalism Editing and Design	3
CMST 3756	Interviewing (this is a required support course)	3
JOUR 3760	News Reporting 2	3
Upper-division Minor Course		3
SS XXXX GER	Social Sciences GER	3

**Semester Hours 15**

#### Spring

JOUR 4824	Press Law and Ethics	3
CMST 4850	Social Media Campaigns (this is a required support course)	3
JOUR Elective Support Course	(see Elective Support Courses list below)	3
Upper-division Minor Course		3
SPA XXXX GER	Social & Personal Awareness	3

**Semester Hours 15**

### Year 4

#### Fall

Upper-division JOUR Elective	(see Journalism Electives list below; possible internship)	3
Upper-division JOUR Elective	(see Journalism Electives list below)	3
Upper-division JOUR Elective Support Course	(see Elective Support Courses list below)	3
Upper-division Minor Course		3

**Semester Hours 12**

#### Spring

JOUR 4893	Journalism Senior Project	3
Upper-division JOUR Elective	(see Journalism Electives list below)	3
Upper-division Minor Course		3
Upper-division Elective		3
Elective		3

**Semester Hours 15**

**Total Semester Hours 120**

## Journalism Electives

Select four of the following (or a total of 12 s.h.):

COURSE	TITLE	S.H.
JOUR 2605	Journalism as Literature	3
JOUR 2632	Introduction to Photojournalism	3
JOUR 3716	Introduction to Magazine Journalism	3
JOUR 3717	Editorial and Opinion Writing	3
JOUR 3720L	Magazine Journalism Workshop	1
JOUR 3722L	Radio News Workshop	3
JOUR 3758	Projects in Working Class Reporting	3
JOUR 3759	Sports Journalism	3
JOUR 3761	New Media Journalism	3
JOUR 3762	Political Reporting	3
JOUR 4822	Magazine Writing and Reporting	3
JOUR 4823	In-Depth Reporting	3

JOUR 4825	Selected Topics in Journalism	3
JOUR 4894	Journalism Internship	3

## Elective Support Courses

Select two of the following (or a total of 6 s.h.):

COURSE	TITLE	S.H.
ACCT 2602	Financial Accounting	3
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CMST 2600	Communication Theory	3
CSIS 1510	Global Electronic Information Resources	3
ENGL 3740	Advanced Writing	3
ENGL 3743	Professional and Technical Writing	3
ENGL 3745	Writing for Online Environments	3
ENGL 4849	Professional and Technical Editing	3
ENGL 4850	Sociolinguistics	3
POL 3702	Law and Society	3
POL 3714	American Public Opinion	3
POL 3722	State and Local Government	3
STAT 2601	Introductory Statistics	3
TCOM 1580	Introduction to Telecommunication Studies	3

## Learning Outcomes

The Communication Department has established the following learning outcomes for students completing the journalism major. Journalism students will demonstrate an understanding of:

- what constitutes news.
- practical applications of First Amendment law.
- strategies for finding and extracting news.
- writing and editing stories for various audiences and media formats.
- principles and practices of ethical and professional news.

## Bachelor of Arts in Journalism, Broadcast and Digital Media Track

The B.A. in Journalism prepares students for positions in media production, reporting, editing and design. There are two tracks for students majoring in journalism, journalism and journalism broadcast and digital media. The curriculum offers a blend of courses to support this goal. The coursework begins with basic photo, video, writing, reporting and visual literacy skills. These are then followed by courses that focus on design, and advanced reporting and writing projects. Students in the broadcast and digital media track will take several courses in broadcast news and telecommunication. Those in journalism will take a series of electives and interdisciplinary courses, to build skills in interviewing, writing, social media and specialized journalism.

Other on-campus outlets for student writing and productions include the *Penguin Review*, the *\*yo magazine* (<http://www.thejambar.com/category/yo-magazine>), *The Jenny*, **Rookery Radio**, and **thejambar.com**. Internships and other writing opportunities are available at local media outlets including local TV, radio and newspapers. *The Business Journal*, *The Vindicator*, and the *Tribune Chronicle*. Additionally, Journalism majors are encouraged to declare minors that support their specific career objectives, such as public relations, political science, telecommunications, or art/design.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		
ENGL 1550	Writing 1	3

ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Math Requirement (e.g., MATH 2623)		3
Arts and Humanities		6
Natural Sciences		7
Social Sciences		6
Social and Personal Awareness		6
General Education Elective or First-Year Experience Course (e.g., CCAC 1500)		3
Foreign Language 1550		4
Foreign Language 2600		4

### Required Core Courses

JOUR 2624	Imaging and Design of Media	3
JOUR 3721L	Journalism Workshop	3
JOUR 3723	Advanced Journalism Editing and Design	3
JOUR 2622	News Reporting 1	3
JOUR 2626	American Journalism	3
JOUR 3760	News Reporting 2	3
JOUR 4824	Press Law and Ethics	3
JOUR 4893	Journalism Senior Project	3

### Telecommunication Core Courses

TCOM 1580	Introduction to Telecommunication Studies	3
TCOM 1581	Telecommunication Technologies	2
TCOM 2682	Scriptwriting for Electronic Media	3
TCOM 2683	Media Operations and Performance	3
TCOM 3781	Audio Production	3
or TCOM 3782	Video Production 1	
TCOM 3780	Principles and Practices of Media Announcing	3
or TCOM 3789	Electronic Media Interviewing	
TCOM 3790	Broadcast News Lab	3
TCOM 4890	Producing Broadcast News	3
Minor Requirements (some minors require more than 18 credits; assumes 9 hours are upper division)		18
Elective (6 s.h. must be upper division)		7

**Total Semester Hours** **120**

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
JOUR 2624	Imaging and Design of Media	3
ENGL 1550	Writing 1	3
TCOM 1580	Introduction to Telecommunication Studies	3
First Year Experience		3
Artistic & Literary Domain		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
JOUR 2626	American Journalism	3
TCOM 1581	Telecommunication Technologies	2
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
First Social Science Domains		3
First SPA Domain		3
<b>Semester Hours</b>		<b>17</b>

<b>Year 2</b>		
<b>Fall</b>		
JOUR 2622	News Reporting 1	3
Math Requirement		3



TCOM 2683	Media Operations and Performance	3
First Natural Science and Lab		4
Second Social Science Domain		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
JOUR 3721L	Journalism Workshop	3
TCOM 2682	Scriptwriting for Electronic Media	3
Minor Class 1		3
Second Artistic & Literary Domain		3
Second Natural Science Domain		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
TCOM 3781 or TCOM 3782	Audio Production or Video Production 1	3
JOUR 4824	Press Law and Ethics	3
Second SPA Domain		3
Foreign Language 1550		4
Minor Class 2		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
JOUR 3723	Advanced Journalism Editing and Design	3
TCOM 3790	Broadcast News Lab	3
Foreign Language 2600		4
Minor Class 3		3
Minor Class 4		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
JOUR 3760	News Reporting 2	3
TCOM 4890	Producing Broadcast News	3
Minor Class 5		3
Upper Division Elective		3
Upper Division Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
JOUR 4893	Journalism Senior Project	3
TCOM 3789 or TCOM 3780	Electronic Media Interviewing or Principles and Practices of Media Announcing	3
Minor Class 6		3
Upper Division Elective		3
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>122</b>

## Learning Outcomes

The Communication Department has established the following learning outcomes for students completing the journalism major. Journalism students will demonstrate an understanding of:

- What constitutes news.
- Practical applications of First Amendment.
- Strategies for finding and extracting news.
- Writing stories for various audiences and media formats.
- The principles and practices of ethical and professional news.

# Bachelor of Arts in Telecommunication Studies, Media Arts Track

## Overview

The media arts track prepares students to produce and deliver content that passes through some medium such as television, radio, or the Internet. For example, on this track, students may study how content created for the Internet and social media (e.g., YouTube) impacts traditional forms of broadcast media such as radio and television. Students learn about early stages of the field as well as contemporary combinations of telecasting through various media outlets. A major in the telecommunication studies-media arts track curriculum provides students with an in-depth knowledge and intellectual challenge in electronic communication. Students receive practical orientation to the skills and techniques of broadcasting. Further, students explore contemporary theories and problems central to mass media, as well as examine new communication media.

From a liberal arts perspective, the telecommunication studies-media arts track curriculum is designed to aid the student in pursuit of careers not only in broadcasting but also in recently expanding avenues of communication such as non-commercial broadcasting, corporate communication, industrial communication, cablecasting, and independent production. Internships are available are regionally based, national and international media organizations.

## Possible Careers

- Audio producer, director, editor
- Camera operator
- Content producer
- Digital media producer, director, editor
- On-air host
- Media sales
- Media management
- Multimedia producer
- Radio DJ
- Social media manager
- Video blogger (vlogger)
- Video producer, director, editor

## Complementary Minors

- Advertising and Public Relations
- Business
- Computer Databases
- Computer Networking
- Computer Science
- Creative Writing
- Digital Media
- Electronic Commerce Tech
- Entrepreneurship
- Graphic Design
- Interactive Design
- Journalism
- Magazine and Specialty Reporting
- Management
- Marketing
- Multimedia and Web Design
- Multimedia Reporting
- Photography

- Professional Writing and Editing
- Social Media Campaigns
- Web Communications

### Admission Policy

Students who declare an intent to major in telecommunication studies, whether on the media arts track or sports broadcasting track, will be assigned to the "Pre-Telecommunication" (Pre-TCOM) category. Upon completion of 15 semester hours while in the Pre-TCOM category, and completion of ENGL 1550, TCOM 1570 OR 1580, and TCOM 1581 (with grades of "A" or "B" in all three), students will be reassigned to the "Telecommunication Studies" (TCOM) category and track of choice (media arts OR sports broadcasting).

Students may transfer to the Pre-TCOM, but not TCOM, category from another program at YSU or from another institution. Students who have completed associate- or bachelor-level degrees also may enter the Pre-TCOM, but not TCOM, category. Upon completion of 15 semester hours while in the Pre-TCOM category, and completion of ENGL 1550, TCOM 1570 OR 1580, and TCOM 1581 (with grades of "A" or "B" in all three), students will be reassigned to the TCOM category.

Students who have interrupted their attendance at YSU for three consecutive semesters or more will be assigned to the Pre-TCOM category upon return (even if the student was a TCOM major). After completion of 15 semester hours while in the Pre-TCOM category, and completion of ENGL 1550, TCOM 1570 OR 1580, and TCOM 1581 (with grades of "A" or "B" in all three), students will be reassigned to the TCOM category.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement (e.g., MATH 2623, STAT 2625)		
Arts and Humanities		6
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective or First-Year Experience Course (e.g., CCAC 1500)		3
Foreign Language 1550		4
Foreign Language 2600		4
<b>Major Requirements</b>		
TCOM 1500	Orientation to Telecommunication Studies	1
TCOM 1580	Introduction to Telecommunication Studies	3
TCOM 1581	Telecommunication Technologies	2
TCOM 2682	Scriptwriting for Electronic Media	3
TCOM 2683	Media Operations and Performance	3
TCOM 3780	Principles and Practices of Media Announcing	3
TCOM 3781	Audio Production	3
or TCOM 3782	Video Production 1	
TCOM 3783	Telecommunications Regulation	3
TCOM 4887	Theories and Criticisms of Telecommunication	3
TCOM 4897	Seminar in Telecommunication	3
TCOM 4899	Capstone	2
<b>TCOM Electives</b>		11
Select a minimum of 11 s.h. of TCOM electives.		
<b>Minor Requirements (some minors require more than 18 credits)</b>		18

**Electives (students must complete 48 hours of upper division courses; 37xx and above)** 14

**Total Semester Hours** 120

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH XXXX Approved General Education		3
TCOM 1500	Orientation to Telecommunication Studies	1
TCOM 1580	Introduction to Telecommunication Studies	3
TCOM 1581	Telecommunication Technologies	2
NS XXXX	Natural Science GER + Lab	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
TCOM 2682	Scriptwriting for Electronic Media	3
TCOM 2683	Media Operations and Performance	3
AH XXXX	GER Arts & Humanities	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
TCOM 3780	Principles and Practices of Media Announcing	3
Minor course		3
NS XXXX	GER Natural Science	3
SPA XXXX	GER Social & Personal Awareness	3
FNLG 1550	Elementary Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
TCOM 3781	Audio Production	3
or TCOM 3782	or Video Production 1	
Minor course		3
AH XXXX	GER Arts & Humanities	3
SS XXXX	GER Social Sciences	3
FNLG 2600	Intermediate Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
TCOM XXXX	Upper-division Elective	3
Minor course		3
SPA XXXX	GER Social & Personal Awareness	3
SS XXXX	GER Social Sciences	3
<b>Semester Hours</b>		<b>12</b>
<b>Spring</b>		
TCOM 4887	Theories and Criticisms of Telecommunication	3
Upper-division TCOM XXXX Elective		3
Upper-division TCOM XXXX Elective		1
Minor course		3
GER XXXX	General Education Elective	3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
TCOM 3783	Telecommunications Regulation	3
TCOM 4897	Seminar in Telecommunication	3
Upper-division Minor course		3

Upper-division General Elective		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
TCOM 4899	Capstone	2
TCOM 4897	Seminar in Telecommunication	3
Upper-division Minor course		3
Upper-division General Elective		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>120</b>

## LEARNING OUTCOMES

The student learning outcomes for the B.A. degree program in telecommunication studies are as follows:

- The student will construct arguments using basic reasoning skills and avoiding fallacies;
- The student will compose messages using multi-media technology;
- The student will design written, oral, and visual messages to communicate ideas to a specific audience;
- The student will appraise the values, attitudes, and goals of a potential audience using demographic and psychographic variables;
- The student will describe the prevailing theories of electronic media and appraise the relative value of each.

## Bachelor of Arts in Telecommunication Studies, Sports Broadcasting Track

### Overview

The sports broadcasting track was designed to prepare students for the ever-expanding field of sports media. Students on this track have direct access to sports broadcasting opportunities through Youngstown State University Athletics, including NCAA Division I sports, via Horizon League and Missouri Valley Conference (i.e., Penguin football) streams and broadcasts. Students learn the process of preparing content through the pre- and post-production phases as well as evaluation of the content. Courses include Broadcast Sports Producing & Writing, Broadcast Sports Performance, Cross-Platform Sports Broadcasting, Sports Media Production, and Sports Field Production.

The telecommunication studies-sports broadcasting track curriculum is designed to prepare students in pursuit of careers not only in sports media but also in expanding avenues of communication such as cross-platform sports production (i.e., preparing sports content for multiple platforms), media sales and advertising, writing and editing, and independent production. Sports media internships are available at regionally based, national and international media organizations such as ESPN and Fox Sports affiliates and flagship locations.

### Possible Careers

- Camera operator
- Digital media producer, director, editor
- On-air host
- Media sales
- Media management
- Multimedia producer
- Public and media relations
- Radio DJ
- Sports journalist, blogger

- Sports media content producer
- Sports media director, editor
- Social media manager, content creator
- Sports TV/Radio show host, producer
- Sports video blogger (vlogger)
- Video producer, director, editor

### Complementary Minors

- Advertising and Public Relations
- Business
- Creative Writing
- Digital Media
- Electronic Commerce Tech
- Entrepreneurship
- Graphic Design
- Interactive Design
- Journalism
- Magazine and Specialty Reporting
- Management
- Marketing
- Multimedia and Web Design
- Multimedia Reporting
- Photography
- Professional Writing and Editing
- Social Media Campaigns
- Web Communications

### Admission Policy

Students who declare an intent to major in telecommunication studies, whether on the media arts track or sports broadcasting track, will be assigned to the "Pre-Telecommunication" (Pre-TCOM) category. Upon completion of 15 semester hours while in the Pre-TCOM category, and completion of ENGL 1550, TCOM 1570 OR 1580, and TCOM 1581 (with grades of "A" or "B" in all three), students will be reassigned to the "Telecommunication Studies" (TCOM) category and track of choice (media arts OR sports broadcasting).

Students may transfer to the Pre-TCOM, but not TCOM, category from another program at YSU or from another institution. Students who have completed associate- or bachelor-level degrees also may enter the Pre-TCOM, but not TCOM, category. Upon completion of 15 semester hours while in the Pre-TCOM category, and completion of ENGL 1550, TCOM 1570 OR 1580, and TCOM 1581 (with grades of "A" or "B" in all three), students will be reassigned to the TCOM category.

Students who have interrupted their attendance at YSU for three consecutive semesters or more will be assigned to the Pre-TCOM category upon return (even if the student was a TCOM major). After completion of 15 semester hours while in the Pre-TCOM category, and completion of ENGL 1550, TCOM 1570 OR 1580, and TCOM 1581 (with grades of "A" or "B" in all three), students will be reassigned to the TCOM category.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement (e.g., MATH 2623, STAT 2625)		
Arts and Humanities		6
Natural Sciences		7
Social Science		6

Social and Personal Awareness	6
General Education Elective or First-Year Experience Course (e.g., CCAC 1500)	3
FNLG 1550 Elementary Foreign Language	4
FNLG 2600 Intermediate Foreign Language	4
<b>Major Requirements</b>	
TCOM 1500 Orientation to Telecommunication Studies	1
TCOM 1510 Sports Field Production 1	1
TCOM 1570 Elements of Sports Production and Law	3
TCOM 1581 Telecommunication Technologies	2
TCOM 2682 Scriptwriting for Electronic Media	3
TCOM 2683 Media Operations and Performance	3
TCOM 3792 Broadcast Sports Producing and Writing	3
TCOM 3793 Broadcast Sports Performance	3
TCOM 3794 Cross-platform Sports Broadcasting	3
TCOM 3795 Sports Media Production 1	3
TCOM 4887 Theories and Criticisms of Telecommunication	3
TCOM 4889 Broadcast Sports Internship	3
TCOM 4899 Capstone	2
<b>TCOM Electives</b>	7
Select a minimum of 7 s.h. of TCOM Electives.	
<b>Minor Requirements (some minors require more than 18 credits)</b>	18
<b>Electives (students must complete 48 hours of upper division courses; 37xx and above)</b>	14
<b>Total Semester Hours</b>	<b>120</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH XXXX	Approved General Education	3
TCOM 1500	Orientation to Telecommunication Studies	1
TCOM 1570	Elements of Sports Production and Law	3
TCOM 1581	Telecommunication Technologies	2
NS XXXX	Natural Science GER + lab	4
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
TCOM 1510	Sports Field Production 1	1
TCOM 2682	Scriptwriting for Electronic Media	3
TCOM 2683	Media Operations and Performance	3
AH XXXX GER	Arts & Humanities	3
<b>Semester Hours</b>		<b>16</b>

<b>Year 2</b>		
<b>Fall</b>		
TCOM 3792	Broadcast Sports Producing and Writing	3
Minor Course		3
NS XXXX GER	Natural Science	3
SPA XXXX GER	Social & Personal Awareness	3
FNLG 1550	Elementary Foreign Language	4
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
TCOM 3793	Broadcast Sports Performance	3
Minor course		3
AH XXXX GER	Arts & Humanities	3
SS XXXX GER	Social Sciences	3

FNLG 2600	Intermediate Foreign Language	4
<b>Semester Hours</b>		<b>16</b>

<b>Year 3</b>		
<b>Fall</b>		
TCOM 3794	Cross-platform Sports Broadcasting	3
Minor course		3
SPA XXXX GER	Social & Personal Awareness	3
SS XXXX GER	Social Sciences	3
<b>Semester Hours</b>		<b>12</b>

<b>Spring</b>		
TCOM 4887	Theories and Criticisms of Telecommunication	3
TCOM 3795	Sports Media Production 1	3
TCOM XXXX	Upper-division Elective	3
Upper-division Minor course		3
GER XXXX	General Education elective	3
<b>Semester Hours</b>		<b>15</b>

<b>Year 4</b>		
<b>Fall</b>		
TCOM 4889	Broadcast Sports Internship	3
Upper-division Minor course		3
Upper-division General Elective		3
Upper-division General Elective		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
TCOM 4899	Capstone	2
TCOM XXXX	Upper-division Elective	3
Upper-division Minor course		3
Upper-division General Elective		3
Upper-division General Elective		3
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>120</b>

LEARNING OUTCOMES

The student learning outcomes for the B.A. degree program in telecommunication studies are as follows:

- The student will construct arguments using basic reasoning skills and avoiding fallacies;
- The student will compose messages using multi-media technology;
- The student will design written, oral, and visual messages to communicate ideas to a specific audience;
- The student will appraise the values, attitudes, and goals of a potential audience using demographic and psychographic variables;
- The student will describe the prevailing theories of electronic media and appraise the relative value of each.

## Minor in Communicating in Diverse Organizations

COURSE	TITLE	S.H.
CMST 2600	Communication Theory	3
CMST 2655	Communication in Groups and Organizations	3
CMST 2610	Intercultural Communication	3
or CMST 2656	Interpersonal Communication	
CMST 4859	Organizational Cultures	3
CMST 5852	Conflict Management and Negotiation	3

Select one of the following:	3
CMST 3750 Gender Communication	
CMST 3756 Interviewing	
CMST 4855 Interpersonal Communication Relationships	

**Total Semester Hours** 18

## Minor in Communication Studies

Students interested in improving their communication skills should consider one of four minors in communication studies. The minors focus on different areas of communication and each one will help you develop a different skills set. These skills are in high demand by employers and recruiters and include interpersonal communication, intercultural communication, social media communication and campaigns, and conflict management and negotiation.

### MINOR IN COMMUNICATION STUDIES

COURSE	TITLE	S.H.
CMST 2600	Communication Theory	3
Select one of the following:		3
CMST 2630	Social Media Literacy	
CMST 2655	Communication in Groups and Organizations	
CMST 2656	Interpersonal Communication	
Select four CMST upper-division courses (3700 and above)		12
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Interpersonal Communication

COURSE	TITLE	S.H.
CMST 2600	Communication Theory	3
CMST 2630	Social Media Literacy	3
CMST 2656	Interpersonal Communication	3
CMST 3750	Gender Communication	3
CMST 4855	Interpersonal Communication Relationships	3
CMST 5852	Conflict Management and Negotiation	3
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Journalism Studies

COURSE	TITLE	S.H.
First take these courses (6 s.h.):		6
JOUR 2622	News Reporting 1	
JOUR 2624	Imaging and Design of Media	
Select one of the following courses (3 s.h.):		3
JOUR 2603	Journalism Ethics and Social Responsibilities	
JOUR 2605	Journalism as Literature	
JOUR 2626	American Journalism	
Select three of the following courses (9 s.h.):		9
JOUR 3716	Introduction to Magazine Journalism	
JOUR 3717	Editorial and Opinion Writing	
JOUR 3721L	Journalism Workshop	
JOUR 3722L	Radio News Workshop	
JOUR 3723	Advanced Journalism Editing and Design	
JOUR 3758	Projects in Working Class Reporting	
JOUR 3759	Sports Journalism	
JOUR 3760	News Reporting 2	
JOUR 3761	New Media Journalism	

JOUR 3762	Political Reporting	
JOUR 4822	Magazine Writing and Reporting	
JOUR 4823	In-Depth Reporting	
JOUR 4824	Press Law and Ethics	
JOUR 4825	Selected Topics in Journalism	
JOUR 4894	Journalism Internship	

**Total Semester Hours** 18

## Minor in Magazine and Specialty Reporting

COURSE	TITLE	S.H.
JOUR 2622	News Reporting 1	3
JOUR 2624	Imaging and Design of Media	3
JOUR 3716	Introduction to Magazine Journalism	3
JOUR 3720L	Magazine Journalism Workshop	1
Select three of the following courses (9 s.h.)		9
JOUR 3723	Advanced Journalism Editing and Design	
JOUR 3759	Sports Journalism	
JOUR 3761	New Media Journalism	
JOUR 3762	Political Reporting	
JOUR 4822	Magazine Writing and Reporting	
JOUR 4824	Press Law and Ethics	
JOUR 4825	Selected Topics in Journalism	

**Total Semester Hours** 19

## Minor in Multimedia Reporting

COURSE	TITLE	S.H.
JOUR 2622	News Reporting 1	3
JOUR 2624	Imaging and Design of Media	3
JOUR 3721L	Journalism Workshop	3
JOUR 3760	News Reporting 2	3
JOUR 4824	Press Law and Ethics	3
Select one of the following courses (3 s.h.):		3
JOUR 3722L	Radio News Workshop	
JOUR 3759	Sports Journalism	
JOUR 3761	New Media Journalism	
JOUR 3762	Political Reporting	
JOUR 4823	In-Depth Reporting	

**Total Semester Hours** 18

## Minor in Social Media Campaigns

COURSE	TITLE	S.H.
CMST 2600	Communication Theory	3
JOUR 2624	Imaging and Design of Media	3
CMST 2630	Social Media Literacy	3
Select three of the following:		9
CMST 3717	Intro to Media Relations Campaigns	
CMST 3740	Social Media Communication	
CMST 3757	Media Relations Writing	
CMST 4850	Social Media Campaigns	
CMST 4851	New Communication Media	

**Total Semester Hours** 18

## Minor in Sports Information

COURSE	TITLE	S.H.
TCOM 1510	Sports Field Production 1	1
CMST 2600 or CMST 2630	Communication Theory Social Media Literacy	3
CMST 3717	Intro to Media Relations Campaigns	3
CMST 3740 or CMST 3757	Social Media Communication Media Relations Writing	3
JOUR 3725	News Reporting 1	3
JOUR 3721L	Journalism Workshop	3
JOUR 3759	Sports Journalism	3
JOUR 4824	Press Law and Ethics	3
<b>Total Semester Hours</b>		<b>22</b>

are available to full or part time students in the areas of composition, theory, education, history, performance (including conducting) and jazz studies.

The requirements for entrance and for graduation are in accordance with the published regulations of the National Association of Schools of Music, of which the Dana School of Music is a member.

## Mission Statement

The Dana School of Music fosters a vibrant community of student and faculty musicians/scholars who work across broad yet interrelated areas of inquiry including performance, improvisation, composition, pedagogy, theory, history, technology, mind/body research, and the music industry. The Dana School of Music leads in the discovery, dissemination, and application of knowledge; encourages creativity and collaboration; and advocates for the importance of the arts in society.

The Dana School of Music

- Creates diverse educational experiences that develop ethical, intellectually curious students who advance the intellectual and cultural life of the University, city, region, and the world through performances, recordings, and other public activities
- Offers undergraduate programs in performance, jazz performance, music education, composition, music theory, music history and literature, and music recording as well as tracks in entrepreneurship, non-profit leadership, and video production
- Offers graduate programs in performance, music education, jazz studies, conducting, music theory/composition, and music history and literature

## Minor in Telecommunication Studies

Students interested in developing mass communication skills should consider the telecommunication studies minor. The minor focuses on different areas of mass media studies and will help students develop an introductory skill set that would serve as a complementary minor to many different majors. These skills are in high demand by employers and recruiters in a variety of fields. To complete the minor in telecommunication studies, a student must successfully complete 20 s.h. in:

COURSE	TITLE	S.H.
TCOM 1580	Introduction to Telecommunication Studies	3
TCOM 1581	Telecommunication Technologies	2
TCOM 2682	Scriptwriting for Electronic Media	3
TCOM 2683	Media Operations and Performance	3
Select three of the following:		9
TCOM 3783	Telecommunications Regulation	
TCOM 3784	Telecommunication Programming	
TCOM 3791	Electronic Media Sales and Promotion	
TCOM 4881	Telecommunication Management	
TCOM 4885	Developments in Telecommunication Media	
TCOM 4886	Audience and Market Measure	
TCOM 4887	Theories and Criticisms of Telecommunication	
<b>Total Semester Hours</b>		<b>20</b>

## Accreditation

The Dana School of Music is accredited by the National Association of Schools of Music (NASM) (<https://nasm.arts-accredit.org>).

- Date of Initial Accreditation: 9/1/1947
- Year of Most Recent Comprehensive Review: 2010
- Academic Year of Next Scheduled Comprehensive Review: 2020-2021

## Programs

The curriculum may be divided into seven components:

- composition
- music education
- music theory
- music history
- performance
- music recording
- liberal arts

## Dana School of Music

Dr. Randall Goldberg, Director

[regoldberg@ysu.edu](mailto:regoldberg@ysu.edu)

(330) 941-3636

[Dana School of Music web page](#)

Audition Information (<http://www.ysu.edu/academics/college-creative-arts-and-communication/dana-school-of-music/admission>)

Founded over 145 years ago, the Dana School of Music is one of the oldest music schools in the United States. More than 50 faculty and staff maintain a tradition of conservatory-style music training in an urban university setting. We offer students a wide range of degree programs and majors. Bachelor of Music degrees are awarded in composition, music education, music performance, jazz studies, and music recording. Candidates may also earn the Bachelor of Arts degree with majors in music history, music theory, or applied music. At the graduate level, programs leading to the Master of Music degree

## Bachelor of Music

Courses are available leading to the degree of Bachelor of Music with the major in:

- piano
- organ
- voice
- standard string, brass, or wind instruments
- percussion
- composition
- music education
- jazz

It is also possible to obtain a Bachelor of Music degree with emphasis in Music Recording.

## Bachelor of Arts

In addition, it is possible to obtain the degree of Bachelor of Arts with majors in:

- music history
- music theory
- applied music

The BA degrees allow for work in minor areas. The BA in Applied Music allows for more extensive minor areas like nonprofit leadership, entrepreneurship, and video production.

## Bachelor of Music in Education

In cooperation with the College of Education, the music education program prepares students for licensure as music teachers in the public schools and also provides other courses necessary for general elementary teaching certificates. Music education students have a variety of opportunities for observation and practice teaching through excellent cooperation between the University and area schools.

## Facilities

The Dana School is one of four departmental units in the College of Creative Arts and Communication. The school is housed in Bliss Hall, which provides practice rooms, faculty studios, classrooms, rehearsal rooms and a recital hall with a seating capacity of 237. Additional use is made of Stambaugh Auditorium and the DeYor Performing Arts Center.

## Equipment

Equipment includes

- 92 Steinway pianos
- 30 MIDI pianos
- harpsichords by Dowd
- two Schlicker pipe organs
- three Flentrop pipe organs
- consorts of Renaissance wind and brass instruments
- a comprehensive collection of standard band and orchestral instruments

Many University-owned instruments are available for use by students enrolled in related courses. There is no charge for use of these instruments, although failure to comply with check-in deadlines will result in a \$5.00-a-day fine or replacement for each instrument.

## MIDI Classroom

Bliss Hall offers students the opportunity to work with state-of-the-art music computer software and hardware, including advanced music notation, music sequencing (composition/arranging) and automatic accompaniment applications. The classroom features Macintosh workstations, each fully MIDI-equipped.

## Music Recording Studio

The Dana Recording Studio centers around a 12 core Intel Mac tower running Avid Pro-Tools 11, MOTU Digital Performer 7.24, and Apple Logic DAWs software. We have Universal Audio Apollo interfaces and a Tascam DM4800 fully automated mix surface which also serves as an additional audio interface. The studio utilizes outboard Kurzweil and Roland keyboards, controllers, and synths, as well as Reason 7 and the Native Instruments Komplete 10 software package. We feature Shure Large Diaphragm Condenser mics, Audio Technica SDC mics, Shure Beta 58s and 57s. Rounding out our mic locker is a matched pair of Cascade Fathead II ribbon microphones. We are currently exploring the potential of adding audio over IP. We use Genelec 1031 monitoring system with 7050b Sub.

## Libraries

The school's extensive libraries of band, orchestral, and choral music represent musical periods from the Renaissance to the present. Maag Library contains books, printed music, records, CDs, videos, and CD ROMs.

## Scholarships and Loans

The Dana School of Music offers a wide range of scholarships, which are awarded, after competitive auditions, on the basis of talent and academic achievement. For other scholarships, see Loans and Scholarships in the Scholarships and Financial Aid section.

## Musical Activities, Ensembles

The Dana School of Music supplements the concerts offered by community ensembles with the Dana Concert Series. This series brings to the University and to the public artistic solo and ensemble programs featuring faculty members and guest artists, composers, and musicologists.

The School has numerous performing ensembles:

- Dana Chorale
- University Chorus
- Wind Ensemble
- Concert Band
- Marching Band
- Dana Symphony Orchestra
- Opera Workshop
- Jazz Ensemble
- Jazz Combos
- Gospel Choir
- Woodwind, Brass, String and Percussion Ensembles
- Chamber Orchestra
- Early Music and Composers Ensembles

## Music

Many campus musical ensembles are open to all students of the University. For these, see the Dana School of Music in the College of Creative Arts and Communication section of this *Catalog*. For more information visit Dana School of Music (<http://www.ysu.edu/academics/college-creative-arts-and-communication/dana-school-of-music>).

## Student Activities

Music students may participate in all Youngstown State University student activities. Of special interest to music students are the student chapters of:

- Ohio Collegiate Music Educators Association
- New Music Society
- Dana Vocal Society
- Dana Guitar Association
- Dana Piano Guild
- Youngstown Jazz Collective
- Phi Mu Alpha
- Sigma Alpha Iota
- Dana Research Society
- Youngstown Percussion Collective

## Fees

See the Fees and Expenses (p. 20) section of the Undergraduate Catalog.

## Application and Admission Examinations

An applicant for admission to the Dana School of Music must satisfy the general requirements for admission to the University (see the Admission section).

Applicants are required to pass entrance auditions in their performance area and to take placement examinations in music theory and piano. These auditions and examinations are on announced dates preceding the commencement of classes in the fall.

## Admission to Courses for the Degree of Bachelor of Music

The applicant's high school courses should include the preparatory courses specified under High School Preparation of this Catalog.

## Musical Proficiency

It is expected that the applicant will be proficient in one or more branches of applied music before entering the University, as certain standards in technique and repertory must be met. Qualifications are determined by the placement tests mentioned above; the student not qualifying for the first regular course in a major branch of applied music must take preparatory work until ready to undertake the regular courses.

The Dana School of Music theory placement examination is used to determine theory proficiency. Those scoring less than the 80th percentile will be assigned to MUTC 1531N Music Theory 1 Intensive, while those scoring above the 80th percentile will be assigned to MUTC 1531 Music Theory 1.

Prospective composition majors must present evidence of ability to handle the materials of music by placing at or above the 80th percentile of the Dana School of Music theory entrance examination. Proficiency on a musical instrument sufficient for admission to the freshman level of applied music must be demonstrated before the appropriate applied faculty in an audition.

## Admission from Other Institutions

The general policy is stated in the Academic Policies and Procedures section. Advanced standing in musical performance and in music theory is granted tentatively and must be validated by examinations.

## Requirements for the Degree Bachelor of Music

It is the student's responsibility to see that all the graduation requirements for the degree sought are satisfied. These degrees may be earned in eight semesters if students average 16-18 hours per semester. For the Bachelor of Music degree, these consist of:

### Pre-college or preparatory study, of two kinds

1. Academic. These courses are normally taken in high school. Deficiencies must be overcome prior to completing 60 semester hours at YSU.
2. Musical. An entrant lacking suitable proficiency must develop it before undertaking the required college-level music courses.

## University Requirements

Non-music courses and other requirements to be completed in the University are listed in the Degree Requirements chart at the beginning of the College of Creative Arts and Communication section.

## Degree Requirements

Curricula leading to music degrees require from 126 to 137 semester hours of credit and are designed to be completed in four academic years.

## Double Major: Music Performance and Music Education

Students who wish to complete a major (Bachelor of Music or Bachelor of Arts degree) in an instrument or in voice, theory, or composition, and also a major in music education, should consult the Director of the Dana School of Music.

While the Dana School of Music offers a variety of degrees and majors in music, it is our desire that all music students have significant musical experiences as a foundation for more specialized training.

## Curricular For All Music Majors

Acceptance into a performance area is contingent upon an audition. The student not qualifying for Music 1501 may take the relevant course 1500 until the deficiency is corrected.

Advanced standing in performance may be granted tentatively after an examination given by members of the faculty. The final classification is made at the end of the first semester of resident study.

Enrollments in applied music are contingent upon the approval of the director of the Dana School of Music, with priority given to full-time music majors and music minors participating in major ensembles.

### Teacher Assignment

Assignment of students to teachers is made by the area coordinator. Requests for change of teacher should be addressed to the coordinator in writing. A student's choice of teacher will be respected as far as possible, but final assignment rests with the Director of the School of Music.

### Lessons

Students registered for 4 s.h. courses receive 50-minute individual instruction and one 50-minute seminar weekly. They are required to practice three hours daily. Students registered for 2 and 3 s.h. courses receive 50-minute individual instruction and one 50-minute seminar weekly; they are required to practice two hours daily. Students registered for A and B applied courses receive individual instruction for 30 minutes each week and are required to practice one hour daily.

No credit will be given in a performance course if the student misses more than three lessons in any semester. Lessons missed due to legal holidays or school closings will not be made up. In case of prolonged illness the lessons may be made up at the discretion of the teacher.

### Recitals

Recognizing that performing before an audience plays a vital role in musical development, the Dana School offers its students many opportunities to appear in public as a way to foster that development. Attendance at 30 recitals is mandatory in the first two years.

### Convocation

The Assistant Director of the School arranges weekly programs of lectures, student and faculty performances. Attendance at 36 convocations is mandatory in the first two years.

### Young Artist Competition

An annual concert by the Dana Symphony Orchestra features student soloists chosen by competition.

### Dana Young Scholars Award

Dana Young Scholars Award celebrates student research in music. The competition is open to all graduate and undergraduate students at the sophomore level or higher who are enrolled in a music degree at the Dana School of Music.



## Degree and Non-degree Recitals

Each candidate for the degree Bachelor of Music must present a senior recital in partial fulfillment of the graduation requirements. Performance majors must present a half-hour recital their junior year and a one-hour recital their senior year. Composition majors must present 75 minutes of music, and music education majors a half-hour recital of music. Outstanding students may present non-degree recitals, subject to certain conditions (for particulars, consult the coordinator of the Dana Concert Series). Planning for all these recitals should include selection of varied and balanced repertory, preparation of properly detailed copy for the printed program and program notes, and consideration of performance aspects such as attire, stage department, and ways to attract an audience. A recital hearing will be held no later than 21 days prior to the projected recital date. During that time a student who plans to present a degree recital must be prepared to perform the recital program for faculty approval.

All students registered for major-level applied lessons must attend weekly seminars as posted in the schedule of classes.

## Examinations

During examination week of each term, performance faculty members convene to determine whether or not students may proceed to the next higher proficiency level (performance course number). Frequency of required examinations differs among the various performance areas (for specifics consult the syllabus of the performance area concerned). Transfer students are examined at the end of their first or second term of study, as established by the individual performance area. Students presenting an approved degree recital may be granted a waiver of examination for the term of the recital. Students may be retained in the same proficiency level with a grade of C or lower or with a grade of PR. Students who fail to meet the standards of the examining faculty may be required to reduce the number of credits for which they register in subsequent terms; or they may be required to withdraw completely from the course sequence.

Each applied area (keyboard, brass, etc.) may vary the above to meet certain needs. Consult with area coordinator for details.

For more information, visit the Dana School of Music (<http://www.yсу.edu/academics/college-creative-arts-and-communication/dana-school-of-music>).

## Jazz or Applied/BA Major

The following courses differ only in degree from those listed under Performance Major according to the credit hours earned. (See courses Applied Studio Instruction for specific requirements.) A high standard of proficiency is expected. For the jazz major, junior and senior recitals are required.

COURSE	TITLE	S.H.
1501, 1502. See Performance Major		4
2603, 2604. See Performance Major		6
3703, 3704. See Major/Performance		6
4803, 4804. See Major/Performance		6
<b>Total Semester Hours</b>		<b>22</b>

## Music Education Major

The following courses differ only in degree from those listed under Performance Major according to the credit hours earned. (See courses Applied Studio Instruction for specific requirements.) Concentration in the development of basic technics relative to teaching in the elementary and secondary school systems is an integral component of study. A high standard of proficiency is expected. Senior recital required. This degree may be earned in eight semesters if students average 17 hours per semester.

COURSE	TITLE	S.H.
<b>General Education Requirement</b>		
Core Competencies		12

ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		3
Arts and Humanites		6
Natural Science		6
Social Science		6
Social and Personal Awareness		6
General Education Elective		3
<b>Major Requirements</b>		
1501, 1502. See Performance Major		2+2
2601, 2602. See Performance Major		2+2
3701, 3702. See Major/Performance		2+2
4801. See Performance Major		2
<b>Total Semester Hours</b>		<b>44-50</b>

## Ensembles

There are two types of ensembles in the Dana School of Music:

- large ensembles
- chamber ensembles

Large ensembles rehearse a total of three or four hours per week, and chamber ensembles for two hours per week.

## Large Ensembles

COURSE	TITLE	S.H.
MUEN 0002	Dana Chorale	1
MUEN 0003	Dana Madrigal	1
MUEN 0004	University Chorus	1
MUEN 0005	Concert Band	1
MUEN 0006	Marching Band	1
MUEN 0007	Wind Ensemble	1
MUEN 0008	Symphony Orchestra	1
MUEN 0023	Jazz Ensemble	1
MUEN 0040	University Band (spring only)	1

## Chamber Ensembles

COURSE	TITLE	S.H.
MUEN 0009	Percussion Ensemble	1
MUEN 0010	String Ensemble	1
MUEN 0012	Dana Opera Ensemble	1
MUEN 0013	Contemporary Ensemble	1
MUEN 0014	Women's Chorus	1
MUEN 0015	Early Music Ensemble	1
MUEN 0016	Woodwind Ensemble	1
MUEN 0017	Brass Ensemble	1
MUEN 0018	Horn Choir	1
MUEN 0019	Trombone Ensemble	1
MUEN 0020	Tuba Ensemble	1
MUEN 0021	Brass Chamber Ensemble	1
MUEN 0022	Trumpet Ensemble	1
MUEN 0024	Composer's Ensemble	1
MUEN 0026	Chamber Orchestra	1
MUEN 0028	Chamber Winds	1
MUEN 0029	Guitar Ensemble	1
MUEN 0030	Jazz Combo	1
MUEN 0035	Saxophone Quartet	1

MUEN 0041	Basketball Pep Band (spring only)	1
MUEN 0051	Piano Chamber	1

Ensemble courses are open to all students in the University who are qualified for them and any ensemble course may be repeated any number of semesters.

Requirements in addition to the above but unique to each ensemble:

- Opera workshop 0012 culminates in the production of one or more operas. Credit is given in accordance with the amount of work chosen by the student, ranging from one to three semester hours.
- Woodwind and brass ensembles may include quartets, quintets, and various other combinations of instruments. 1 s.h. each

For more information, visit the **Dana School of Music** (<http://www.yсу.edu/academics/college-creative-arts-and-communication/dana-school-of-music>).

#### Chair

**Randall E. Goldberg**, Ph.D., Associate Professor, Chair

#### Professor

**Ewelina Boczkowska**, Ph.D., Associate Professor

**Kivie Cahn-Lipman**, D.M.A., Assistant Professor

**Maria Fenty Denison**, D.M.A., Assistant Professor

**Kent J. Engelhardt**, Ph.D., Professor

**Francois P. Fowler**, D.M., Associate Professor

**Stephen L. Gage**, Ed.D., Professor

**Daniel Keown**, Ph.D., Assistant Professor

**Brian D. Kiser**, D.M.A., Associate Professor

**Christopher Krummel**, D.M.A., Professor

**Hae-Jong Lee**, D.M.A., Associate Professor

**J. Paul Louth**, Ph.D., Associate Professor

**Stacie Renee Mickens**, D.M.A., Associate Professor

**David S. Morgan**, D.M.A., Professor

**Allan Mosher**, D.M.A., Professor

**Caroline Oltmanns**, D.M.A., Professor

**Phyllis Paul**, Ph.D., Professor

**Brandt Payne**, D.M.A., Associate Professor

**Steven M. Reale**, Ph.D., Associate Professor

**Jena Root**, Ph.D., Associate Professor

**Glenn Schaft**, D.M.A., Professor

**James C. Umble**, D.M.A., Professor

**Kathryn T. Umble**, D.M.A., Professor

**Alice M. Wang**, D.M.A., Associate Professor

**Cicilia Yudha**, D.M.A., Associate Professor

**Misook Yun**, D.M.A., Professor

#### Instructor

**Joseph Kromholz**, M.M., Instructor

## Majors

- Bachelor of Music in Performance, Instrumental Emphasis (p. 261)
- Bachelor of Music in Performance, Jazz Emphasis (p. 262)
- Bachelor of Music in Performance, Organ Emphasis (p. 264)
- Bachelor of Music in Performance, Piano Emphasis (p. 265)
- Bachelor of Music in Performance, Voice Emphasis (p. 266)
- Bachelor of Music in Composition (p. 247)
- Bachelor of Music in Education, Instrumental Emphasis (p. 254)
- Bachelor of Music in Education, Keyboard Emphasis (p. 257)
- Bachelor of Music in Education, Voice Emphasis (p. 258)
- Bachelor of Arts in Music, Applied Music Emphasis (p. 249)
- Bachelor of Arts in Music, Music History Emphasis (p. 250)
- Bachelor of Arts in Music, Music Theory Emphasis (p. 251)
- Bachelor of Arts in Music, Nonprofit Leadership Emphasis (p. 252)
- Bachelor of Music with an Emphasis in Music Recording (p. 260)

## Minors

- Music Minor (p. 267)

#### *Music Applied Classes*

#### **MUAC 1521 Keyboard Musicianship for Non-Music Majors 1 1 s.h.**

Intended for the student with no previous music studies, this first-semester course develops fundamental piano playing, through the study of music fundamentals and repertoire.

#### **MUAC 1522 Keyboard Musicianship for Non Music Majors 2 1 s.h.**

Continuation of MUAC 1521. Intended for the student with no previous music studies, this second-semester course develops fundamental piano playing, through the study of music fundamentals and repertoire.

**Prereq.:** MUAC 1521 or permission of instructor.

#### **MUAC 1556 Singer's Diction: English/Italian 1 s.h.**

Application of the principles of Lyric diction; utilization of the International Phonetic Alphabet in developing and reading phonetics transcriptions of English, Italian song texts.

#### **MUAC 1557 Singer's Diction: German 1 s.h.**

Application of the principles of Lyric diction; utilization of the International Phonetic Alphabet in developing and reading phonetics transcriptions of German song texts.

#### **MUAC 1558 Singer's Diction: French 1 s.h.**

Application of the principles of Lyric diction; utilization of the International Phonetic Alphabet in developing and reading phonetics transcriptions of French song texts.

#### **MUAC 1581 Class Piano 1 1 s.h.**

Intended for and required of all non-keyboard music majors, the first-semester course builds functional skills at the piano. Students develop techniques to perform all major scales and arpeggios, sight reading, triads and inversion, primary chords, harmonization of popular and/or folk tunes, and repertoire with both hands.

**Coreq.:** Major-level applied lessons (1501 or higher) or permission of coordinator.

#### **MUAC 1582 Class Piano 2 1 s.h.**

Continuation of MUAC 1581 and required of all non-keyboard music majors. Students hone piano techniques by performing major and minor scales and arpeggios, score analysis, transposition, harmonization of popular and/or folk tunes with extended chords, and solo/ensemble repertoire with both hands.

**Prereq.:** grade of "C" or better in MUAC 1581.

**Coreq.:** Major-level applied lessons (1501 or higher), placement test, or permission of coordinator.

**MUAC 2667 Jazz Improvisation 1 3 s.h.**

Jazz techniques with emphasis on analysis of harmonic progressions, form, style, and performance requirements of the jazz idiom. Classes must be taken in sequence.

**Prereq.:** MUAC 1525 or a grade of "B" or better on the Jazz Placement Test.

**MUAC 2668 Jazz Improvisation 2 3 s.h.**

Jazz techniques with emphasis on analysis of harmonic progressions, form, style, and performance requirements of the jazz idiom. Classes must be taken in sequence.

**Prereq.:** MUAC 1525 or a grade of "B" or better on the Jazz Placement Test.

**MUAC 2681 Class Piano 3 1 s.h.**

Continuation of MUAC 1581-1582 and required of all non-keyboard music majors. Students perform all technical requirements with fluidity and early intermediate repertoire with appropriate musical style. Emphasis on two- to three-part score reading involving transpositions, harmonization with secondary dominant chords and various accompanying patterns.

**Prereq.:** grade of "C" or better in MUAC 1582.

**Coreq.:** Major-level applied lessons (1501 or higher), placement test, or permission of coordinator.

**MUAC 2682 Class Piano 4 1 s.h.**

Final class piano required of all non-keyboard music majors that culminates in the Piano Proficiency Exam. The course emphasizes solo repertoire (including a patriotic selection for Music Education and Voice majors), three- and four-part score reading excerpts of choral, mixed-instruments repertoire, advanced accompanying, and introduction to piano pedagogy.

Final class piano required of all non-keyboard music majors that culminates in the Piano Proficiency Exam. The course emphasizes solo repertoire (including a patriotic selection for Music Education and Voice majors), three- and four-part score reading excerpts of choral, mixed-instruments repertoire, advanced accompanying, and introduction to piano pedagogy. **Prereq.:** grade of "C" or better in MUAC 2681.

**MUAC 2691 Professional Piano Skills 1 1 s.h.**

The course consists of a combination of piano skills in addition to vocal and instrumental accompanying. These may include transposition, sight reading, improvisation, creation of piano accompaniment, reading of lead-sheets and numbered bass, playing basic piano accompaniments in a number of styles including gospel, country, classical, new age, and/or the knowledge of and ability to play excerpts of the major classical works for piano for medley play and demonstration in a teaching environment.

**MUAC 2692 Professional Piano Skills 2 1 s.h.**

The course consists of a combination of piano skills in addition to vocal and instrumental accompanying. These may include transposition, sight reading, improvisation, creation of piano accompaniment, reading of lead-sheets and numbered bass, playing basic piano accompaniments in a number of styles including gospel, country, classical, new age, and/or the knowledge of and ability to play excerpts of the major classical works for piano for medley play and demonstration in a teaching environment.

**MUAC 2693 Professional Piano Skills 3 1 s.h.**

The course consists of a combination of piano skills in addition to vocal and instrumental accompanying. These may include transposition, sight reading, improvisation, creation of piano accompaniment, reading of lead-sheets and numbered bass, playing basic piano accompaniments in a number of styles including gospel, country, classical, new age, and/or the knowledge of and ability to play excerpts of the major classical works for piano for medley play and demonstration in a teaching environment.

**MUAC 2694 Professional Piano Skills 4 1 s.h.**

The course consists of a combination of piano skills in addition to vocal and instrumental accompanying. These may include transposition, sight reading, improvisation, creation of piano accompaniment, reading of lead-sheets and numbered bass, playing basic piano accompaniments in a number of styles including gospel, country, classical, new age, and/or the knowledge of and ability to play excerpts of the major classical works for piano for medley play and demonstration in a teaching environment.

**MUAC 3732 Brass Methods 1 s.h.**

Designed to prepare students for instrumental music teaching relative to brass instruments. Emphasis on tone production, the harmonic series, technique development, ranges and transposition, pedagogy, troubleshooting, and arranging techniques for brass instruments. Meets 2 hours per week.

**Prereq.:** FOUN 1501 and MUTC 1532.

**MUAC 3733 Woodwind Methods 1 s.h.**

Designed to prepare students for instrumental music teaching relative to woodwind instruments (flute, clarinet, oboe, bassoon, saxophone). Components include concepts of tone production, embouchure, articulation, and technique. Study material stresses common features as well as differences.

**Prereq.:** FOUN 1501.

**MUAC 3734 String Methods 1 s.h.**

Designed to prepare students for instrumental music teaching relative to string instruments (violin, viola, cello, string bass). Components include concepts of tone production, bowing, fingering as well as appropriate evaluation of pedagogy. Study material stresses common features as well as differences.

**Prereq.:** FOUN 1501.

**MUAC 3735 Jazz Methods 1 s.h.**

Designed to prepare students jazz teaching relative to instruments and voice. Components include fundamental techniques and approaches for directing small and large jazz ensembles, teaching of basic improvisation skills, rhythms section/soloist interaction, and stylistic interpretation. Students will demonstrate basic performance proficiencies in jazz on their applied instruments and/or voices. Meets 2 hours per week.

**Prereq.:** FOUN 1501 or MUTC 1532.

**MUAC 3755 Guitar Class 1 s.h.**

Study of the guitar at the beginning level to explore techniques and approaches appropriate to school music instruction. A minimum level of performance is required.

**Prereq.:** FOUN 1501.

**MUAC 3759 Voice Class 1 s.h.**

A study of voice at the beginning level to explore techniques and approaches appropriate to school music instruction. A minimum level of performance is required. May be repeated.

**Prereq.:** FOUN 1501.

**MUAC 3763 Percussion Methods 1 s.h.**

Study of snare drum, marching percussion, timpani, jazz drum set, keyboard, Latin percussion, and orchestral accessories. Topics include instrument selection and maintenance techniques as well as pedagogical approaches. Designed to prepare students for instrumental music teaching careers.

**Prereq.:** FOUN 1501.

**MUAC 3781 Jazz Class Piano 1 1 s.h.**

(For keyboard and non-keyboard majors). Class instruction and keyboard experience in jazz chordal voicing techniques including shell voicings and open voicings. Techniques will be applied to blues and jazz repertoire including performance of melodies, rhythmic accompaniments, and improvised comping. Classes must be taken in sequence. Meets two days per week.

**Prereq.:** grade of "B" or better in MUAC 1582 or permission of instructor.

**MUAC 3782 Jazz Class Piano 2 1 s.h.**

(For keyboard and non-keyboard majors). Class instruction and keyboard experience in jazz chordal voicing techniques including a study of open voicings using altered dominants and quartal voicings. Techniques will be applied to blues and jazz repertoire including performance of melodies, rhythmic accompaniments, and improvised comping. Meets two days per week.

**Prereq.:** MUAC 3781, or permission of instructor.

**MUAC 4867 Jazz Improvisation 3 3 s.h.**

Advanced jazz techniques with emphasis on analysis of harmonic progressions, form, style, and performance requirements of the jazz idiom. Courses must be taken in sequence.

**Prereq.:** MUAC 2668.

**MUAC 4868 Jazz Improvisation 4 3 s.h.**

Advanced jazz techniques with emphasis on analysis of harmonic progressions, form, style, and performance requirements of the jazz idiom. Courses must be taken in sequence.

**Prereq.:** MUAC 2668.

## Music Conducting

**MUCO 3715 Choral and Instrumental Conducting 3 s.h.**

Designed to develop skills, hone competencies, and share conceptual knowledge relative to the art and pedagogy of conducting. Students develop skills in conducting, score analysis and preparation, rehearsal techniques, and error detection, and create artistic interpretation with peer-lab ensemble.

**Prereq.:** MUTC 2632.

## Music Education

**MUED 2611 Computer Applications in Music Education 2 s.h.**

An overview of computer applications as they relate to the music educator. Specific hardware and software in music education will be discussed. Project topics: administrative software, music notation, MIDI, arranging and improvisation with computers, and designing multimedia. Meets two hours per week.

**Prereq.:** MUTC 1532.

**MUED 2622 Foundations of Music Education 2 s.h.**

Introduction to the principles and current practices of teaching music in K-12 settings. Strategies and approaches to teaching music of various genres with emphasis on the unique challenges of public school music instruction in the 21st Century. Includes 15 hours of exploratory fieldwork. Topics include assessment, curricular design, student engagement, classroom management, and multiculturalism.

**MUED 3722 Music in Early Childhood 3 s.h.**

Fundamental skills, repertoire, materials, and techniques for teaching music to pre-kindergarten through third grade children. For non-music majors.

**Prereq.:** CHFM 2633.

**MUED 4821 Instrumental Music Education 2 s.h.**

Materials, methods and literature for teaching elementary, middle school, and high school instrumental music programs. Emphasis on curriculum design, pedagogy, orchestration/arranging techniques, and learning theories related to jazz, concert, marching band, and orchestra. Requires 5 hours of field experience.

**Prereq.:** MUED 2622 and upper-division status in the College of Education.

**MUED 4822 Teaching Choral Music 2 s.h.**

Materials, methods and literature for school vocal ensembles. Additional emphasis is on vocal pedagogy, curriculum design, score study, adolescent voice, vocal literacy, arranging techniques, vocal improvisation, programming, designing and implementing choreography in vocal ensembles, and current issues in vocal music education. Requires 5 hours of field experience.

**Prereq.:** MUED 2622 and upper division status in the college of education.

**MUED 4823 Music Teaching in Early Childhood (Pre K-3) 2 s.h.**

Course emphasizes strategies, curriculum development, materials, classroom management, and developmentally appropriate practices for teaching diverse populations of pre K through third grade students. Candidates design and implement lessons aligned to state standards, based on established methods (Orff, Kodály, Dalcroze) in simulated and authentic settings. Requires 10 hours of field experience.

**Prereq.:** Upper division status in the college of education.

**MUED 4824 Music Teaching in the Middle School 2 s.h.**

Music materials and methods of instruction in middle schools with emphasis on understanding the physiological and psychological development of early adolescents in the context of general music classes. Course content includes managing the learning environment, motivating students, developing music curricula, planning musical experiences and assessing musical behaviors. Requires 12 hours of field experience.

**Prereq.:** MUED 4821 or MUED 4822 or concurrent enrollment, and upper division status in the college of education.

**MUED 4825 Music Teaching in the High School 2 s.h.**

Methods of organizing, administering, teaching, and conducting music in the high schools; instruction methods, curriculum, technology, scheduling, philosophy, classroom management, and applying learning theories and research to practice. Special focus on designing and implementing standards-based music objectives in both instrumental and vocal rehearsal settings. Requires 10 hours of field experience.

**Prereq.:** Upper-division status in the College of Education and either MUED 4821 or MUED 4822, plus concurrent enrollment in or completion of MUCO 3715.

**MUED 5814 Selected Topics in Music Education 2 s.h.**

Course title will be listed each semester in the Schedule of Classes. May be repeated for credit with different topics.

**Prereq.:** MUED 4823 or MUED 4825.

**MUED 5841 Music Workshop 1-3 s.h.**

For students and teachers in service; topics may vary from year to year. Specific topics are announced each time the workshop is offered. May be repeated with different topic.

**MUED 5858 Piano Pedagogy 3 s.h.**

Methods and materials involved in teaching piano in private and classroom settings. Fundamentals of technique as well as repertoire. Supervised practice teaching.

**Prereq.:** Two years of applied keyboard.

**MUED 5880 Vocal Pedagogy 1 s.h.**

A comparative study of physiological and psychological approaches to voice instruction and their application to private and class instruction.

**Prereq.:** Two years of applied voice classes.

## Music Ensembles

**MUEN 0002 Dana Chorale 1 s.h.**

Dana Chorale.

**MUEN 0002P Dana Chorale 0 s.h.**

Dana Chorale.

**MUEN 0003 Dana Madrigal 1 s.h.**

Dana Madrigal.

**MUEN 0003P Dana Madrigal 0 s.h.**

Dana Madrigal.

**MUEN 0004 University Chorus 1 s.h.**

University Chorus.

**MUEN 0004P University Chorus 0 s.h.**

University Chorus.

**MUEN 0005 Concert Band 1 s.h.**

Concert Band.

**MUEN 0005P Concert Band 0 s.h.**

Concert Band.

**MUEN 0006 Marching Band 1 s.h.**

Marching Band.

**MUEN 0006P Marching Band 0 s.h.**

Marching Band.

**MUEN 0007 Wind Ensemble 1 s.h.**

Wind Ensemble.

**MUEN 0007P Wind Ensemble 0 s.h.**

Wind Ensemble.

**MUEN 0008 Symphony Orchestra 1 s.h.**

Symphony Orchestra.

**MUEN 0008P Symphony Orchestra 0 s.h.**

Symphony Orchestra.

**MUEN 0009 Percussion Ensemble 1 s.h.**

Percussion Ensemble.

**MUEN 0009P Percussion Ensemble 0 s.h.**

Percussion Ensemble.

**MUEN 0010 String Ensemble 1 s.h.**

String Ensemble.

**MUEN 0010P String Ensemble 0 s.h.**

String Ensemble.

**MUEN 0011 Men's Chorus 1 s.h.**

Men's Chorus.

**MUEN 0011P Men's Chorus 0 s.h.**

Men's Chorus.

**MUEN 0012 Dana Opera Ensemble 1 s.h.**

Opera Ensemble.

**Prereq.:** By audition and by permission of instructor and voice teacher only.**MUEN 0012P Dana Opera Ensemble 0 s.h.**

Opera Ensemble.

**Prereq.:** By audition and by permission of instructor and voice teacher only.**MUEN 0013 Contemporary Ensemble 1 s.h.**

Contemporary Ensemble.

**MUEN 0013P Contemporary Ensembles 0 s.h.**

Contemporary Ensembles.

**MUEN 0014 Women's Chorus 1 s.h.**

Women's Chorus.

**MUEN 0014P Women's Chorus 0 s.h.**

Women's Chorus.

**MUEN 0015 Early Music Ensemble 1 s.h.**

Early Music Ensemble.

**MUEN 0015P Early Music Ensemble 0 s.h.**

Early Music Ensemble.

**MUEN 0016 Woodwind Ensemble 1 s.h.**

Woodwind Ensemble.

**MUEN 0016P Woodwind Ensemble 0 s.h.**

Woodwind Ensemble.

**MUEN 0017 Brass Ensemble 1 s.h.**

Brass Ensemble.

**MUEN 0017P Brass Ensemble 0 s.h.**

Brass Ensemble.

**MUEN 0018 Horn Choir 1 s.h.**

Horn Choir.

**MUEN 0018P Horn Choir 0 s.h.**

Horn Choir.

**MUEN 0019 Trombone Ensemble 1 s.h.**

Trombone Ensemble.

**MUEN 0019P Trombone Ensemble 0 s.h.**

Trombone Ensemble.

**MUEN 0020 Tuba Ensemble 1 s.h.**

Tuba Ensemble.

**MUEN 0020P Tuba Ensemble 0 s.h.**

Tuba Ensemble.

**MUEN 0021 Brass Chamber Ensemble 1 s.h.**

Brass Chamber Ensemble.

**MUEN 0021P Brass Chamber Ensemble 0 s.h.**

Brass Chamber Ensemble.

**MUEN 0022 Trumpet Ensemble 1 s.h.**

Trumpet Ensemble.

**MUEN 0022P Trumpet Ensemble 0 s.h.**

Trumpet Ensemble.

**MUEN 0023 Jazz Ensemble 1 s.h.**

Jazz Ensemble.

**MUEN 0023P Jazz Ensemble 0 s.h.**

Jazz Ensemble.

**MUEN 0024 Composer's Ensemble 1 s.h.**

Composer's Ensemble.

**MUEN 0024P Composer's Ensemble 0 s.h.**

Composer's Ensemble.

**MUEN 0025 Gospel Choir 1 s.h.**

A choral music performance group whose repertoire focuses on African American Gospel music and the culture in which it was created. Musical styles will encompass Spirituals through Contemporary Gospel. Meets 2 hours per week. Open to all YSU students.

**MUEN 0026 Chamber Orchestra 1 s.h.**

Chamber Orchestra.

**MUEN 0026P Chamber Orchestra 0 s.h.**

Chamber Orchestra.

**MUEN 0028 Chamber Winds 1 s.h.**

Chamber Winds.

**MUEN 0028P Chamber Winds 0 s.h.**

Chamber Winds.

**MUEN 0029 Guitar Ensemble 1 s.h.**

Guitar Ensemble.

**MUEN 0029P Guitar Ensemble 0 s.h.**

Guitar Ensemble.

**MUEN 0030 Jazz Combo 1 s.h.**

Jazz Combo.

**MUEN 0030P Jazz Combo 0 s.h.**

Jazz Combo.

**MUEN 0035 Saxophone Quartet 1 s.h.**

Saxophone Quartet.

**MUEN 0035P Saxophone Quartet 0 s.h.**

Saxophone Quartet.

**MUEN 0040 University Band 1 s.h.**

University Band.

**MUEN 0040P University Band 0 s.h.**

University Band.

**MUEN 0041 Basketball Pep Band 1 s.h.**

Basketball Pep Band.

**MUEN 0041P Basketball Pep Band 0 s.h.**

Basketball Pep Band.

**MUEN 0051 Piano Chamber 1 s.h.**

Piano Chamber.

**MUEN 0051P Piano Chamber 0 s.h.**

Piano Chamber.

## Music History and Literature

**MUHL 2616 Survey of Jazz 3 s.h.**

A historical survey of the origins, influences, and stylistic features of jazz from its beginnings to the present, with emphasis on performers, compositions, and innovations.

**Gen Ed:** Arts and Humanities.**MUHL 2616H Honors Survey of Jazz 3 s.h.**

A historical survey of the origins, influences, and stylistic features of jazz from its beginnings to the present, with emphasis on performers, compositions, and innovations.

**Gen Ed:** Arts and Humanities.

**MUHL 2617 Film Music 3 s.h.**

A historical survey of the use of music in the motion picture. Examination of different styles in works by major composers.

**Gen Ed:** Arts and Humanities.

**MUHL 2617H Honors Film Music 3 s.h.**

A historical survey of the use of music in the motion picture. Examination of different styles in works by major composers.

**Gen Ed:** Arts and Humanities.

**MUHL 2618 Rock n' Roll to Rock 3 s.h.**

A historical survey of the evolution of rock n' roll into rock with emphasis on the interrelationships of the music and social and political influences and the interaction of rock with other musical styles.

**Gen Ed:** Arts and Humanities.

**MUHL 2618H Honors Rock n' Roll to Rock 3 s.h.**

A historical survey of the evolution of rock n' roll into rock with emphasis on the interrelationships of the music and social and political influences and the interaction of rock with other musical styles.

**Gen Ed:** Arts and Humanities.

**MUHL 2619 Music of Non-Western Societies 3 s.h.**

A historical survey of music as it relates to the different cultures, with emphasis on the development of instruments, vocal practices and performance media within specific cultures.

**MUHL 2620 Music of African Americans 3 s.h.**

The study of African American musical genres from slavery to the present with focus on stylistic features, innovations, and the culture in which they were created. Topics may include Folk Music, Blues, Gospel, Ragtime, Jazz, Musical Theater, Art/Classical Music, Rhythm & Blues, Funk, Disco and House, Techno, Hip-Hop, Rap, Gender Issues, Popular Music Industry, and Musical Agency.

**MUHL 2621 Music Literature and Appreciation 3 s.h.**

The development of listening techniques applicable to Western and non-Western music through the comparison and contrast of the music of significant historical periods. For non-music majors.

**Gen Ed:** Arts and Humanities, International Perspectives, Social and Personal Awareness.

**MUHL 2622 Popular Music in America 3 s.h.**

The changing styles in American popular music from its origins to the present day studied through an examination of representative compositions and performers.

**Gen Ed:** Arts and Humanities.

**MUHL 2623 Core Concepts of Music 1 s.h.**

Introduction to the study of music and culture. Basic parameters of music and its function in society are explored. Two MUEN large ensembles other than Marching Band must be taken in addition to this course to satisfy the requirements for GER credit. 1 s.h.

**MUHL 3771 Music History and Literature 1 3 s.h.**

An introduction to the intersection of music and culture. Students will explore the cultural contexts and the social, economic, and technological forces that influence the creation and dissemination of music. In addition to the core content of the class, students will be introduced to parallel narratives in the visual arts, literature, and theater. Students will demonstrate, through examination and written assignments, their understanding of how music history is a function of cultural values and choices.

**Prereq.:** sophomore standing and MUTC 1520 or permission of instructor.

**Gen Ed:** International Perspectives, Social and Personal Awareness.

**MUHL 3772 Music History and Literature 2 3 s.h.**

An introductory history of musical culture in Europe from Antiquity to 1750 C.E. Students will study the important composers and musical genres and the cultural contexts and social forces that influence the creation and dissemination of music. In addition to the core content of the class, students will be introduced to parallel narratives in the visual arts, literature, and theater. Students will also demonstrate, through examination and written assignments, their understanding of how music history is a function of cultural values and choices.

**Prereq.:** sophomore standing, MUTC 1520 or by examination, and MUHL 3771.

**Gen Ed:** Arts and Humanities.

**MUHL 3773 Music History and Literature 3 3 s.h.**

An introductory history of musical culture in Europe from 1750 C. E. to the present. Students will study the important composers and musical genres and the cultural contexts and social forces that influence the creation and dissemination of music. In addition to the core content of the class, students will be introduced to parallel narratives in the visual arts, literature, and theater. Students will also demonstrate, through examination and written assignments, their understanding of how music history is a function of cultural values and choices. **Prereq.:** sophomore standing and MUTC 1520 or by examination, and MUHL 3772.

**Gen Ed:** Arts and Humanities.

**MUHL 3774 Music History and Literature 4 3 s.h.**

A historical survey of music in America. Students will study the important composers and musical genres and the cultural contexts and social forces that influence the creation and dissemination of music. In addition to the core content of the class, students will be introduced to parallel narratives in the visual arts, literature, and theater. Students will also demonstrate, through examination and written assignments, their understanding of American musical styles and how they have developed within America's unique historical context, demographics, and social structures.

**Prereq.:** sophomore standing and MUTC 1531 or permission of instructor, and MUHL 3773.

**Gen Ed:** Arts and Humanities.

**MUHL 3775 Jazz History 3 s.h.**

Students will study and develop an understanding of jazz origins, influences, performers, compositions, and stylistic features from the turn of the century to the present. This will include study of early jazz, the swing era, bebop, cool, hard bop, post bop, modal music, modal chromatic music, free jazz, and fusion. **Prereq.:** MUTC 1520 or minimum 80% on the music theory placement exam.

**MUHL 3787 History and Appreciation of Art and Music 3 s.h.**

(General) Illustrated lectures on art and music to develop the cultural growth of the non-art and non-music student. Art and music forms, comparisons of compositional styles, and discussion of the developments, influences, and experiments of the important periods to date. No prior training in art or music required. Not intended for Art majors. Listed also as ART 3787.

**MUHL 5860 Keyboard Literature 3 s.h.**

An investigation of the solo keyboard works of major composers from the earliest times to the present day.

**Prereq.:** MUTC 2632.

**MUHL 5871 Baroque Music 3 s.h.**

The evolution of musical styles during the period 1600-1750. A historical survey of documents and music literature of the time: opera from Monteverdi to Handel; keyboard and instrumental works; significant choral works, etc.

**Prereq.:** MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773, and MUHL 3774.

**MUHL 5872 Eighteenth Century and the Viennese Classical School 3 s.h.**

Musical developments from the decline of the baroque to the turn of the century; historical and stylistic elements contributing to the rise of classicism and culminating in the works of Mozart, Haydn, Beethoven.

**Prereq.:** MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773 and MUHL 3774.

**MUHL 5873 Opera History 3 s.h.**

A historical survey of opera: its development as an art form from its beginnings to the present.

**Prereq.:** MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773 and MUHL 3774.

**MUHL 5874 Nineteenth Century 3 s.h.**

Musical developments from Beethoven through Wagner; aesthetic, formal, technical and historical trends with special emphasis on nationalism and the music drama.

**Prereq.:** MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773, and MUHL 3774.

**MUHL 5878 Selected Topics in Music History 3 s.h.**

A study of a specific topic to be announced each time the course is offered. May be repeated once with different topic.

**Prereq.:** MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773, and MUHL 3774.

**MUHL 5879 Vocal Literature 3 s.h.**

A study of vocal literature from all periods. Special emphasis on English language repertoire and on material especially suitable for high school students. Songs are prepared for performance in class.

**Prereq.:** MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773, and MUHL 3774.

## Music Industry

**MUIN 1561 Music Recording Workshop 4 s.h.**

Introduction to the music recording process and the recording studio. An overview of music recording grounded in history and the principles of acoustics. An exploration of analog and digital technology involved in music recording. Two hours lecture, two hours lab.

**MUIN 3700 Survey of Music Industry 2 s.h.**

A general overview of the major functional areas of the music industry, with attention to the theoretical foundations and practical application of current business practices in the music industry.

**Prereq.:** Junior standing or permission of instructor.

**MUIN 3762 Digital Sound Production 2 s.h.**

An overview of MIDI and electronic musical instrument technology. Sequencers and mixing in the MIDI environment. Basic compositional techniques using MIDI and the computer and the application of MIDI in the music recording environment.

**Prereq.:** MUIN 1561.

**MUIN 3763 Digital Recording and Editing 2 s.h.**

A study of both linear and non-linear music recording and editing various hardware and software options, as well as the production of recording projects in both domains.

**Prereq.:** MUIN 1561.

**MUIN 3764 Advanced Microphone Techniques 2 s.h.**

Investigation of the characteristics of different microphones, microphone design, microphone selection, and microphone placement. The accessories of various miking situations will be investigated. Experiments with different microphone techniques in both the analogue and digital domains.

**Prereq.:** MUIN 3763.

**MUIN 3765 Advanced Recording Techniques 2 s.h.**

Investigates advanced elements of music recording from the recording session procedures to product manufacture. Advanced techniques in noise reduction, amplification, sound compression, and synchronization.

**Prereq.:** MUIN 3764.

**MUIN 4866 Recording Internship 3 s.h.**

Practicum in appropriate music recording environments. Addresses all aspects of the music recording industry. Students meet once a week on campus to share and discuss experiences from the intern position. A minimum of 12 hours per week will be spent in the field.

**Prereq.:** MUIN 3765 and senior standing in music recording.

**MUIN 4867 Senior Project 4 s.h.**

Independent student project to showcase skills and techniques learned in the content courses. Presentation of project in a public exhibition required.

**Prereq.:** MUIN 3765 and senior standing in music recording.

## Music Theory and Composition

**MUTC 1520 Materials of Music 3 s.h.**

Musical styles, listening concepts, and harmonic techniques as they relate to the literature of music. For students who do not qualify for MUTC 1531 or MUTC 1531N.

**MUTC 1531 Music Theory 1 2 s.h.**

The first of four courses in the Music Theory sequence. Accelerated review of scales, intervals, and chords. Principles of harmonic progression with diatonic chords in common-practice and popular styles. Introduction to analysis and phrase structure. Two-part counterpoint. Introduction to four-voice writing with diatonic, root-position triads.

**Prereq.:** Music majors who have completed a successful audition for the Dana School of Music, and have achieved 80% or higher on the Theory Placement Exam, or permission of the instructor.

**MUTC 1531N Music Theory 1 Intensive 2 s.h.**

Intensive section of Music Theory 1. Music fundamentals, including pitch notation in treble and bass clefs, major and minor scales and key signatures, rhythm and meter, intervals and triads. Principles of harmonic progression with diatonic chords in common-practice and popular styles. Introduction to analysis and phrase structure.

**Prereq.:** Music major, having achieved a successful audition for the Dana School of Music.

**MUTC 1532 Music Theory 2 2 s.h.**

The second of four courses in the Music Theory sequence. Review of four-part writing and analysis. Non-harmonic tones, expanding harmonic functions with diatonic triads and seventh chords, six-four chord techniques.

**Prereq.:** grade of "C" or better in both MUTC 1531 and MUTC 1541.

**MUTC 1532N Music Theory 2 Intensive 2 s.h.**

Intensive section of Music Theory 2. Introduction to two-part counterpoint and four-voice writing with diatonic, root-position triads. Non-harmonic tones, expanding harmonic functions with diatonic triads and seventh chords, six-four chord techniques.

**Prereq.:** Grade of "C" or better in MUTC 1531N and MUTC 1541.

**MUTC 1541 Aural Theory 1 2 s.h.**

Dictation exercises including solfege patterns, bass line recognition, melody with simple rhythm, and 2-part counterpoint examples. Sight-singing including simple diatonic melodies, duets, chord-singing, and improvisation. Keyboard exercises including solfege patterns, play-and-sing, and transposition exercises. Solfege drills to build and maintain fluency with the solfege system.

**Prereq.:** Music majors who have completed a successful audition for the Dana School of Music.

**MUTC 1542 Aural Theory 2 2 s.h.**

Sight-sing diatonic and chromatic melodies. Aurally recognize and sing all diatonic triads and seventh chords. Diatonic and chromatic melodic dictation. Dictation and singing of diatonic chord progressions. Dictation of diatonic two-voice counterpoint in both strict species and free styles. Mastery of cadential patterns and voice-leading at the keyboard.

**Prereq.:** Grade of "C" or better in both MUTC 1531 (or MUTC 1531N) and MUTC 1541.

**MUTC 2631 Music Theory 3 2 s.h.**

The third of four courses in the Music Theory sequence. Continued mastery of basic voice-leading. Chromatic harmony including secondary dominants, modulations, modal mixture, and augmented sixths. Study of small and large classical forms.

**Prereq.:** Grade of "C" or better in both MUTC 1532 or MUTC 1532N and MUTC 1542.

**MUTC 2632 Music Theory 4 2 s.h.**

Advanced chromaticism, including chromatic and enharmonic modulation, extended tertian structures, chromatic mediants, altered dominants, and common tone diminished-sevenths. Early twentieth-century musical styles and model composition.

**Prereq.:** Grade of "C" or better in both MUTC 2631 and MUTC 2641.

**MUTC 2641 Aural Theory 3 2 s.h.**

Practice and mastery of advanced sight singing, aural recognition, and piano/instrumental skills. Dictation exercises including chromatic solfege patterns, chord progressions, contextual listening, and chromatic melodies. Sight-singing exercises including chromatic patterns, melodies, duets, chord-singing, and improvisation.

**Prereq.:** MUTC 1532 or MUTC 1532N and MUTC 1542 with grade of "C" or better.

**MUTC 2642 Aural Theory 4 2 s.h.**

Dictation exercises include melodies, melodic fragments, chord qualities, and harmonic progressions with enharmonic and chromatic modulations. Sight-singing exercises include melodies with advanced chromaticism and post-tonal melodies. Sight-singing repertoire including four-part chorales and music from the late nineteenth and early twentieth centuries. 2 s.h.

**Prereq.:** MUTC 2631 and MUTC 2641 with grades of "C" or better.

**MUTC 3712 Jazz Arranging 1 3 s.h.**

Scoring in the jazz idiom with emphasis on harmonic concepts, voicing procedures, form, and stylistic trends developed by major jazz composer-arrangers. Detailed study of instrumental techniques with projects scored for various size ensembles. Student arrangements are performed in reading sessions and concerts. Classes must be taken in sequence.

**Prereq.:** MUTC 1532 and MUAC 2668 or permission of instructor.

**MUTC 3713 Jazz Arranging 2 3 s.h.**

Scoring in the jazz idiom with emphasis on harmonic concepts, voicing procedures, form, and stylistic trends developed by major jazz composer-arrangers. Detailed study of instrumental techniques with projects scored for various size ensembles. Student arrangements are performed in reading sessions and concerts. Classes must be taken in sequence.

**Prereq.:** MUTC 1532 and MUAC 2668 or permission of instructor.

**MUTC 3750 Analytical Techniques 3 s.h.**

Analysis of representative repertoire from the Renaissance, Baroque, Classical, Romantic, and Contemporary periods.

**Prereq.:** MUTC 2632 and MUTC 2642 with grades of "C" or better.

**MUTC 5821 Composition for Minors 2 s.h.**

Composition in two- and three-part forms, and other compositions of small scope, such as variation and sonatina. Works are composed both for piano alone, and in combination with other instruments or voice. May be repeated by composition majors to meet requirements for freshman and sophomore composition for majors.

**Prereq.:** MUTC 2632 with a grade of "C" or better, or permission of instructor for composition majors.

**MUTC 5822 Composition for Minors 2 s.h.**

Composition in two- and three-part forms, and other compositions of small scope, such as variation and sonatina. Works are composed both for piano alone, and in combination with other instruments or voice. May be repeated by composition majors to meet requirements for freshman and sophomore composition for majors.

**Prereq.:** MUTC 2632 with a grade of "C" or better, or permission of instructor for composition majors.

**MUTC 5828 Music Technology 3 s.h.**

An exploration of the use of computers and technology in music. Applications related to composition, performance, analysis, teaching, and research.

**Prereq.:** MUTC 2632 with grade of "C" or better or permission of instructor.

**MUTC 5830 Materials of 20th Century Music 3 s.h.**

Study of the various elements of 20th century compositions, including melody, harmony, rhythm, texture, and form.

**Prereq.:** MUTC 2632 with a grade of "C" or better.

**MUTC 5831 Modal Counterpoint 3 s.h.**

Sixteenth century contrapuntal style including introduction of species technique; analysis of liturgical and secular repertoire; writing of imitative counterpoint with stylistic rhythms and cadences.

**Prereq.:** MUTC 2632 with a grade of "C" or better.

**MUTC 5832 Tonal Counterpoint 3 s.h.**

Contrapuntal style of baroque music including an analysis of examples in imitative and invertible counterpoint; writing two- and three-part inventions and three- and four-part fugal expositions.

**Prereq.:** MUTC 2632 with a grade of "C" or better.

**MUTC 5833 Theory Seminar 3 s.h.**

Topics in music theory not covered in regular upper-division offerings. May be repeated once with different topic.

**Prereq.:** MUTC 2632 with a grade of "C" or better.

**MUTC 5834 Electronic Music 3 s.h.**

Techniques of analog and digital synthesis including tape composition, musique concrete; advanced MIDI applications such as sequencing and sampling; and digital audio editing. Composition in electronic and mixed media.

**Prereq.:** For composition majors, COMP 1502 or equivalent; for non-composition majors, MUTC 2632 with a grade of "C" or better; for non-majors, permission of instructor.

**MUTC 5840 Instrumentation 3 s.h.**

Ranges, transposition, technical characteristics, and tonal features of the instruments. Scoring for large and small ensembles which are available as laboratory reading groups.

**Prereq.:** MUTC 2632 with a grade of "C" or better.

## Bachelor of Music in Music Composition

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities (satisfied by 6 hours of MUHL 377x)		0
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First Year Experience		
<b>II. Core Music Requirements</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 3750	Analytical Techniques	3
MUTC 5840	Instrumentation	3
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
MCMP 1501	Composition	2
MCMP 1502	Composition	2
MCMP 2601	Composition	2



MCMP 2602	Composition	2
MCMP 3703	Composition	3
MCMP 3704	Composition	3
MCMP 4803	Composition	3
MCMP 4804	Composition	3
Large Ensemble		7
MUTC Music Theory Electives		9
MUHL Music History Elective		3
Recitals		N/ C
Foreign Language		8
Applied Lessons		7
MUAC 1581	Class Piano 1	1
MUAC 1582	Class Piano 2	1
MUAC 2681	Class Piano 3	1
or MUAC 3781	Jazz Class Piano 1	
MUAC 2682	Class Piano 4	1
or MUAC 3782	Jazz Class Piano 2	
<b>Total Semester Hours</b>		<b>123</b>

Passed TPE and Audition

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUAC 1581	Class Piano 1	1
MUEN 00XX		1
VOIC 1500A	Voice (or Instrument 1500A)	1
MCMP 1501	Composition	2
Natural Science Elective + Lab		4
ENGL 1550	Writing 1	3
<b>Semester Hours</b>		<b>16</b>

**Spring**

MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUAC 1582	Class Piano 2	1
MUEN 00XX		1
VOIC 1500B	Voice (or Instrument 1500B)	1
MCMP 1502	Composition	2
General Education Electives		3
ENGL 1551	Writing 2	3
<b>Semester Hours</b>		<b>15</b>

**Year 2****Fall**

MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUAC 2681 or MUAC 3781	Class Piano 3 or Jazz Class Piano 1	1
MUEN 00XX		1
VOIC 2600A	Voice (or Instrument 2600A)	1
MUHL 3771	Music History and Literature 1	3
MCMP 2601	Composition	2

CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>15</b>

**Spring**

MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUAC 2682 or MUAC 3782	Class Piano 4 or Jazz Class Piano 2	1
MUEN 00XX		1
VOIC 2600B	Voice (or Instrument 2600B)	1
MUHL 3772	Music History and Literature 2	3
MCMP 2602	Composition	2
Foreign Language		4
MATH 2623	Quantitative Reasoning	3
<b>Semester Hours</b>		<b>19</b>

**Year 3****Fall**

MUHL 3773	Music History and Literature 3	3
General Education Elective		3
MUTC 3750	Analytical Techniques	3
MCMP 3703	Composition	3
VOIC 3700A	Voice (or Instrument 3700A)	1
MUEN 00XX		1
<b>Semester Hours</b>		<b>14</b>

**Spring**

MUHL 3774	Music History and Literature 4	3
MUTC 5840	Instrumentation	3
General Education Electives		3
MUCO 3715	Choral and Instrumental Conducting	3
MCMP 3704	Composition	3
VOIC 3700B	Voice (or Instrument 3700B)	1
MUEN 00XX		1
<b>Semester Hours</b>		<b>17</b>

**Year 4****Fall**

MCMP 4803	Composition	3
MUEN 00XX		1
VOIC 5800A	Voice (or Instrument 5800A)	1
MUTC Electives		6
General Education Electives		3
<b>Semester Hours</b>		<b>14</b>

**Spring**

MCMP 4804	Composition	3
MUTC Electives		3
MUHL Elective		3
Foreign Language		4
<b>Semester Hours</b>		<b>13</b>

**Total Semester Hours****123**

## Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.

- Students will demonstrate basic keyboard proficiency including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.
- Students will compose music in a variety of genres.

# Bachelor of Arts in Music, Applied Music Track

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
Arts and Humanities (satisfied by 6 hours of MUHL 3771 and MUHL 3772)		
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience (satisfied by MUHL 3773)		
Foreign Language Requirement		8
Any Foreign Language 1550 Level Course		
Any Foreign Language 2600 Level Course		
<b>II. Core Music Requirements</b>		
<b>Music Theory: 19 hours</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 3750	Analytical Techniques	3
<b>Music History and Literature: 12 hours</b>		
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
<b>Keyboard Musicianship: 4 hours</b>		
MUAC 1581	Class Piano 1	1
MUAC 1582	Class Piano 2	1
MUAC 2681 or MUAC 3781	Class Piano 3 Jazz Class Piano 1	1
MUAC 2682 or MUAC 3782	Class Piano 4 Jazz Class Piano 2	1
<b>Conducting: 3 hours</b>		
MUCO 3715	Choral and Instrumental Conducting	3
<b>Applied Major: 14 hours</b>		
1501		2
1502		2
2601		2
2602		2
3701		2

3702		2
4801		2
<b>Large Ensembles: 5 hours</b>		
MUEN		1
MUEN		1
MUEN		1
MUEN		1
MUEN		1
<b>Chamber Ensembles: 2 hours</b>		
MUEN		1
MUEN		1
<b>Minor: 18 hours (6 hours upper division)</b>		18
Electives: 9 hours		9
<b>Total Semester Hours</b>		<b>125</b>

Passed TPE and Audition

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUAC 1581	Class Piano 1	1
MUEN 00XX		1
VOIC 1501	Voice (or Instrument 1501)	2
General Education Electives		6
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUAC 1582	Class Piano 2	1
MUEN 00XX		1
VOIC 1502	Voice (or Instrument 1502)	2
General Education Electives		3
Natural Science + Lab		4
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUAC 2681	Class Piano 3	1
MUEN 00XX		1
VOIC 2601	Voice (or Instrument 2601)	2
MUHL 3771	Music History and Literature 1	3
General Education Electives		3
Minor Course		3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUAC 2682	Class Piano 4	1
MUEN 00XX		1
VOIC 2602	Voice (or Instrument 2604)	2
MUHL 3772	Music History and Literature 2	3

General Education Electives	3
Minor Course	3
<b>Semester Hours</b>	<b>17</b>
<b>Year 3</b>	
<b>Fall</b>	
MUHL 3773 Music History and Literature 3	3
VOIC 3701 Voice (or Instrument 3701)	2
MUEN 00XX	1
MUTC 3750 Analytical Techniques	3
Minor Course	3
General Education Electives	3
<b>Semester Hours</b>	<b>15</b>
<b>Spring</b>	
MUHL 3774 Music History and Literature 4	3
VOIC 3701 Voice (or Instrument 3704)	2
MUEN 00XX	1
MUCO 3715 Choral and Instrumental Conducting	3
Minor Course	3
General Education Electives	3
<b>Semester Hours</b>	<b>15</b>
<b>Year 4</b>	
<b>Fall</b>	
VOIC 4801 Voice (or Instrument 4801)	2
MUEN 00XX	1
Music Electives	6
Minor Course	3
Foreign Language	4
<b>Semester Hours</b>	<b>16</b>
<b>Spring</b>	
Music Electives	3
Minor Course	3
Foreign Language	4
General Education Electives	6
<b>Semester Hours</b>	<b>16</b>
<b>Total Semester Hours</b>	<b>125</b>

# Bachelor of Arts in Music History and Literature

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities (satisfied by 6 hours of MUHL 377x)		
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		
Foreign Language Requirement		
Foreign Language 1550		4
Foreign Language 2600		4
<b>II. Core Music Requirements</b>		

MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 3750	Analytical Techniques	3
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
MUCO 3715	Choral and Instrumental Conducting	3
Keyboard Musicianship		4
MUAC 1581	Class Piano 1	
MUAC 1582	Class Piano 2	
MUAC 2681 or MUAC 3781	Class Piano 3 or Jazz Class Piano 1	
MUAC 2682 or MUAC 3782	Class Piano 4 or Jazz Class Piano 2	

<b>III. Music History Emphasis</b>	
Applied Instrument/Voice 1501-2602	8
Large Ensemble	4
MUHL Music History/Literature Electives	12
MUTC Music Theory Electives	6
Minor Required	18
<b>Total Semester Hours</b>	<b>125</b>

Passed TPE and Audition

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUAC 1581	Class Piano 1	1
MUEN 00XX		1
MUHL 3771 or MUHL 3773	Music History and Literature 1 or Music History and Literature 3	3
VOIC 1501	Voice (or Instrument 1501)	2
Natural Science + Lab		4
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUAC 1582	Class Piano 2	1
MUEN 00XX		1
MUHL 3772 or MUHL 3774	Music History and Literature 2 or Music History and Literature 4	3
VOIC 1502	Voice (or Instrument 1502)	2

General Education Electives		3
<b>Semester Hours</b>		<b>14</b>
<b>Year 2</b>		
<b>Fall</b>		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUAC 2681	Class Piano 3	1
MUEN 00XX		1
MUHL 3771	Music History and Literature 1	3
VOIC 2601	Voice (or Instrument 2601)	2
Minor Course		3
General Education Elective		3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUAC 2682	Class Piano 4	1
MUEN 00XX		1
MUHL 3772	Music History and Literature 2	3
VOIC 2602	Voice (or Instrument 2602)	2
Minor Course		3
<b>Semester Hours</b>		<b>14</b>
<b>Year 3</b>		
<b>Fall</b>		
MUTC 3750	Analytical Techniques	3
MUHL 3773	Music History and Literature 3	3
Music Elective		3
Minor Course		3
Foreign Language		4
General Education Elective		3
<b>Semester Hours</b>		<b>19</b>
<b>Spring</b>		
Music Elective		3
MUHL 3774	Music History and Literature 4	3
MUCO 3715	Choral and Instrumental Conducting	3
Minor Course		3
Foreign Language		4
General Education Elective		3
<b>Semester Hours</b>		<b>19</b>
<b>Year 4</b>		
<b>Fall</b>		
Music Electives		6
Minor Course		3
General Education Elective		6
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
Music Electives		6
Minor Course		3
General Education Elective		3
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>125</b>

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.
- Students will research and create a document on a music-historical or music-theoretical subject.

## Bachelor of Arts in Music Theory

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities (satisfied by 6 hours of MUHL 377x)		
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		
Foreign Language Requirement		
Foreign Language 1550		4
Foreign Language 2600		4
<b>II. Core Music Requirements</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 3750	Analytical Techniques	3
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
MUCO 3715	Choral and Instrumental Conducting	3
Keyboard Musicianship		4
MUAC 1581	Class Piano 1	
MUAC 1582	Class Piano 2	
MUAC 2681	Class Piano 3	
or MUAC 3781	Jazz Class Piano 1	
MUAC 2682	Class Piano 4	
or MUAC 3782	Jazz Class Piano 2	
<b>III. Music Theory Emphasis</b>		
Applied Instrument/Voice 1501-2602		8
Large Ensemble		4
MUTC Theory/Composition Electives		12
MUHL Music History Electives		6

## Learning Outcomes

The student learning outcomes for the major in music are as follows:

Minor Required	18
<b>Total Semester Hours</b>	<b>125</b>

Passed TPE and Audition

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUAC 1581	Class Piano 1	1
MUEN 00XX		1
VOIC 1501	Voice (or Instrument 1501)	2
General Education Electives		6
<b>Semester Hours</b>		<b>14</b>

**Spring**

MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUAC 1582	Class Piano 2	1
MUEN 00XX		1
VOIC 1502	Voice (or Instrument 1502)	2
General Education Electives		3
Natural Science + Lab		4
<b>Semester Hours</b>		<b>15</b>

**Year 2**

<b>Fall</b>		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUAC 2681	Class Piano 3	1
MUEN 00XX		1
VOIC 2601	Voice (or Instrument 2601)	2
MUHL 3771	Music History and Literature 1	3
General Education Elective		3
Minor Course		3
<b>Semester Hours</b>		<b>17</b>

**Spring**

MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUAC 2682	Class Piano 4	1
MUEN 00XX		1
VOIC 2602	Voice (or Instrument 2602)	2
MUHL 3772	Music History and Literature 2	3
General Education Elective		3
Minor Course		3
<b>Semester Hours</b>		<b>17</b>

**Year 3**

<b>Fall</b>		
MUHL 3773	Music History and Literature 3	3
Music Elective		3
MUTC 3750	Analytical Techniques	3
Minor Course		3
Foreign Language		4
<b>Semester Hours</b>		<b>16</b>

**Spring**

MUHL 3774	Music History and Literature 4	3
Music Elective		3
MUCO 3715	Choral and Instrumental Conducting	3
Minor Course		3
Foreign Language		4
<b>Semester Hours</b>		<b>16</b>

**Year 4**

<b>Fall</b>		
MUHL/MUTC Upper Division Electives		6
Minor Course		3
General Education Elective		6
<b>Semester Hours</b>		<b>15</b>

**Spring**

MUHL/MUTC Upper Division Electives		6
Minor Course		3
General Education Elective		6
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>125</b>

## Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.
- Students will research and create a document on a music-historical or music-theoretical subject.

## Bachelor of Arts in Performance, Nonprofit Leadership Track

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities (satisfied by 6 hours of MUHL 377x)		
Natural Sciences		7
Social Sciences		6
Social and Personal Awareness		6
General Education Elective / First Year Experience		
Foreign Language Requirement		8
Any Foreign Language 1550 Level Course		
Any Foreign Language 2600 Level Course		
<b>II. Core Music Requirements</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4

Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532

MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 3750	Analytical Techniques	3
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
MUCO 3715	Choral and Instrumental Conducting	3

**Keyboard Musicianship**

Select one course sequence for non-keyboard or keyboard majors:

**Non-keyboard Majors**

MUAC 1581	Class Piano 1	
MUAC 1582	Class Piano 2	
MUAC 2681	Class Piano 3	
or MUAC 3781	Jazz Class Piano 1	
MUAC 2682	Class Piano 4	
or MUAC 3782	Jazz Class Piano 2	

OR

<b>Keyboard Majors</b>		4
MUAC 2691	Professional Piano Skills 1	
MUAC 2692	Professional Piano Skills 2	
MUAC 2693	Professional Piano Skills 3	
MUAC 2694	Professional Piano Skills 4	

**III. Applied Music Emphasis**

Applied Instrument/Voice 1501-4801		14
Large Ensemble		5
Chamber Ensemble		2
Senior Recital		N/C

**Electives**

BUS 3740	Nonprofit Community Service 1	1
BUS 4840	Nonprofit Leadership Internship	3
BUS 4841	Nonprofit Leadership Seminar	1
PHIL 2625 or PHIL 2628	Introduction to Professional Ethics Business Ethics	3
MKTG 3702	Business Professionalism	1

**Minor**

**Suggested courses**

BUS 1500	Exploring Business	3
BUS 3720	Nonprofit Leadership	3
BUS 3780	Financial Management and Fundraising for Nonprofit Organizations	3
ADV 3710	Basic Public Relations	3
MGT 3725	Fundamentals of Management	3
MGT 3755	Managing Workplace Diversity	3

**Total Semester Hours 125**

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4

Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531

MUAC 1581	Class Piano 1	1
MUEN 00XX		1
VOIC 1501	Voice (or Instrument 1501)	2
ENGL 1550	Writing 1	3
CMST 1545	Communication Foundations	3

**Semester Hours 14**

**Spring**

MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
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Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532

MUAC 1582	Class Piano 2	1
MUEN 00XX		1
VOIC 1502	Voice (or Instrument 1502)	2
Natural Science+ Lab		4
ENGL 1551	Writing 2	3

**Semester Hours 15**

**Year 2**

**Fall**

MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUAC 2681	Class Piano 3	1
VOIC 2601	Voice (or Instrument 2601)	2
MUHL 3771	Music History and Literature 1	3
General Education Electives		3
MATH 2623	Quantitative Reasoning	3

**Semester Hours 16**

**Spring**

MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUAC 2682	Class Piano 4	1
MUEN 00XX		1
VOIC 2602	Voice (or Instrument 2602)	2
MUHL 3772	Music History and Literature 2	3
General Education Electives		3
Natural Science Elective		3

**Semester Hours 17**

**Year 3**

**Fall**

MUHL 3773	Music History and Literature 3	3
MUEN 00XX		1
VOIC 3701	Voice (or Instrument 3701)	2
MUTC 3750	Analytical Techniques	3
Minor Course		3
General Education Elective		3

**Semester Hours 15**

**Spring**

MUHL 3774	Music History and Literature 4	3
MUEN 00XX		1
VOIC 3702	Voice (or Instrument 3702)	2
MUCO 3715	Choral and Instrumental Conducting	3
Minor Course		3
PHIL 2625	Introduction to Professional Ethics	3
MKTG 3702	Business Professionalism	1

**Semester Hours 16**

Year 4		
<b>Fall</b>		
MUEN 00XX		1
VOIC 4801	Voice (or Instrument 4801)	2
Senior Recital		N/C
Minor Courses		6
BUS 4840	Nonprofit Leadership Internship	3
Foreign Language 1500		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
BUS 3740	Nonprofit Community Service 1	1
BUS 4841	Nonprofit Leadership Seminar	1
Minor Course		3
Foreign Language 2600		4
MUEN 00XX		1
Minor Course		3
General Education Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Total Semester Hours</b>		<b>125</b>

## Bachelor of Arts in Performance, Instrumental Track

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
Arts and Humanities		6
MUHL 3771	Music History and Literature 1	
MUHL 3772	Music History and Literature 2	
Natural Sciences (2 courses, one must include a lab)		7
Social Sciences		6
Social and Personal Awareness		6
General Education Elective		3
MUHL 3773	Music History and Literature 3	
Foreign Language		8
Foreign Language 1500		
Foreign Language 2600		
<b>II. Core Music Requirements</b>		
<b>Music Theory: 19 hours</b>		<b>19</b>
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	
MUTC 2642	Aural Theory 4	
MUTC 3750	Analytical Techniques	

<b>Music History and Literature: 12 hours</b>		<b>12</b>
MUHL 3771	Music History and Literature 1	
MUHL 3772	Music History and Literature 2	
MUHL 3773	Music History and Literature 3	
MUHL 3774	Music History and Literature 4	
<b>Keyboard Musicianship: 4 hours</b>		<b>4</b>
MUAC 1581	Class Piano 1	
MUAC 1582	Class Piano 2	
MUAC 2681	Class Piano 3	
or MUAC 3781	Jazz Class Piano 1	
MUAC 2682	Class Piano 4	
or MUAC 3782	Jazz Class Piano 2	
<b>Conducting: 3 hours</b>		<b>3</b>
MUCO 3715	Choral and Instrumental Conducting	
<b>Applied Major: 14 hours</b>		<b>14</b>
1501		
1502		
2601		
2602		
3701		
3702		
4801		
<b>Large Ensembles: 5 hours of MUEN</b>		<b>5</b>
<b>Chamber Ensembles: 2 hours of MUEN</b>		<b>2</b>
<b>Dana School of Music Requirements:</b>		
Convocation attendance requirement		
Recital attendance requirement		
Senior Recital (connected to Applied Major 4801)		
<b>Minor: 18 hours (6 hours upper division)</b>		<b>18</b>
<b>Minimum Total Semester Hours for the Degree: 125</b>		

## Bachelor of Music in Music Education, Instrumental Track

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities (satisfied by 6 hours of MUHL 377x)		0
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		
<b>II. Core Music Requirements</b>		
Applied Major 1501-4801		14
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		

MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 3750	Analytical Techniques	3
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
MUCO 3715	Choral and Instrumental Conducting	3
MUED 2611	Computer Applications in Music Education	2
MUED 4823	Music Teaching in Early Childhood (Pre K-3)	2
MUED 4824	Music Teaching in the Middle School	2
MUED 4825	Music Teaching in the High School	2
MUED 4821	Instrumental Music Education	2
Senior Recital		N/C

**III. Instrumental Emphasis**

Large Ensemble		5
Chamber Ensemble		2
MUAC 1581	Class Piano 1	1
MUAC 1582	Class Piano 2	1
MUAC 2681	Class Piano 3	1
or MUAC 3781	Jazz Class Piano 1	
MUAC 2682	Class Piano 4	1
or MUAC 3782	Jazz Class Piano 2	
Methods/Applied Classes		5

**IV. College of Education Licensure Requirements**

PSYC 3709	Psychology of Education	3
EDFN 1501	Introduction to Education	3
EDFN 3708	Education and Society	3
SPED 2630	Individuals with Exceptionalities in Society	3
TERG 3710	Reading Application in Content Areas, Middle Years	3
MULT 4807	Teaching Across the Curriculum	2
SED 4844	Supervised Student Teaching: Music (K-12)	10
SED 4842A	Student Teaching Seminar for Secondary Education	2

Students are required to complete the Senior Recital before student teaching.

**Total Semester Hours 134**

Different Emphases may vary slightly

Total 1 s.h. Methods Courses = 5

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
Instrument or Voice 1501		2
EDFN 1501	Introduction to Education	3
ENGL 1550	Writing 1	3
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUEN XXXX		1
MATH 2623	Quantitative Reasoning	3
MUAC 1581	Class Piano 1	1
<b>Semester Hours</b>		<b>17</b>

<b>Spring</b>		
Instrument or Voice 1502		2
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2 (Core UD Gateway Course)	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUEN XXXX		1
MUAC 1582	Class Piano 2	1
SPED 2630	Individuals with Exceptionalities in Society (Core UD gateway Course)	3
ENGL 1551	Writing 2	3
Natural Science Elective + Lab		4
<b>Semester Hours</b>		<b>18</b>

**Year 2**

<b>Fall</b>		
Instrument or Voice 2601		2
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUEN XXXX		1
MUED 2611	Computer Applications in Music Education	2
MUAC 2681	Class Piano 3	1
MUAC 3733	Woodwind Methods	1
MUAC 3755	Guitar Class	1
CMST 1545	Communication Foundations (Core UD Gateway Course)	3
MUHL 3771	Music History and Literature 1	3
<b>Semester Hours</b>		<b>18</b>

**Spring**

Instrument or Voice 2602		2
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUHL 3774	Music History and Literature 4	3
General Education Electives		3
MUAC 3763	Percussion Methods	1
MUAC 2682	Class Piano 4	1
Application for Upper Division must be completed by this semester.		
MUAC 3735	Jazz Methods	1
<b>Semester Hours</b>		<b>15</b>

**Year 3**

<b>Fall</b>		
Instrument or Voice 3701		2
MUED 4823	Music Teaching in Early Childhood (Pre K-3)	2
MUED 4821	Instrumental Music Education	2
MUEN 0005	Concert Band	1
MUTC 3750	Analytical Techniques	3
General Education Electives		3
PSYC 1560	General Psychology	3
MUHL 3773	Music History and Literature 3	3
All convocation requirements must be completed by the end of 3rd year if students wish to student teach in the spring of 4th year!		
<b>Semester Hours</b>		<b>19</b>

**Spring**

MUED 4824	Music Teaching in the Middle School	2
MUCO 3715	Choral and Instrumental Conducting	3
MUEN XXXX	Chamber Ensemble	1
General Education Electives		3
PSYC 3709	Psychology of Education	3



Instrument or Voice 3702	2
MUHL 3774 Music History and Literature 4	3
General Education Elective	3
<b>Semester Hours</b>	<b>20</b>

**Year 4**

**Fall**

Senior Recital MUST be completed by the end of this semester. The following 3 courses MUST be scheduled in the semester prior to student teaching, if student teaching is to take place in the spring. Application to student teach Due: September 15. Placement meeting with Music Education Coordinator must occur before September 15.

MULT 4807 Teaching Across the Curriculum	2
TERG 3710 Reading Application in Content Areas, Middle Years	3
MUED 4825 Music Teaching in the High School	2
Instrument or Voice 4801	2
EDFN 3708 Education and Society	3
MUAC 3759 Voice Class	1
MUEN 00XX Chamber Ensemble	1
MUEN XXXX	1
<b>Semester Hours</b>	<b>15</b>

**Spring**

SED 4842A Student Teaching Seminar for Secondary Education	2
SED 4844 Supervised Student Teaching: Music (K-12)	10
<b>Semester Hours</b>	<b>12</b>

**Total Semester Hours 134**

# Bachelor of Music in Education, Instrumental Jazz Track

COURSE	TITLE	S.H.
General Education Requirements		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning <sup>2</sup>	
Social Science Domain Elective		6
PSYC 1560	General Psychology	
Social Science GER		
Social and Personal Awareness Domain		6
Natural Science Domain: 2 courses (1 must include a lab component)		7
Arts and Humanities Domain (satisfied by 6 hours of MUHL 3771-3774)		
General Education / First Year Experience (satisfied by 3 hours of MUHL 3771-3774)		
<b>Music Theory: 19 hours</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4

MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 2642	Aural Theory 4	2
MUTC 3712	Jazz Arranging 1	3

**Music History and Literature: 12 hours**

MUHL 3775	Jazz History	3
Select 3 from the following courses:		9
MUHL 3771	Music History and Literature 1	
MUHL 3772	Music History and Literature 2	
MUHL 3773	Music History and Literature 3	
MUHL 3774	Music History and Literature 4	

**Keyboard Musicianship: 4 hours**

MUAC 1581	Class Piano 1	1
MUAC 1582	Class Piano 2	1
MUAC 3781	Jazz Class Piano 1	1
MUAC 3782	Jazz Class Piano 2	1

**Conducting: 3 hours**

MUCO 3715	Choral and Instrumental Conducting	3
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**Applied Major: 14 hours**

Instrument 1501		2
Instrument 1502		2
Instrument 2601		2
Instrument 2602		2
Instrument 3701		2
Instrument 3702		2
Instrument 4801		2

**Large Ensembles: 5 hours (1 hour must include a vocal ensemble)**

MUEN 0002 or MUEN 0004	Dana Chorale or University Chorus	1
MUEN 0006	Marching Band	1
MUEN 0023	Jazz Ensemble	1
MUEN 0023	Jazz Ensemble	1
MUEN 0023	Jazz Ensemble	1

**Chamber Ensembles: 2 hours**

MUEN 0030	Jazz Combo	1
MUEN 0030	Jazz Combo	1

**Methods: 7 hours (indicate specific course number and title)**

MUAC 2667	Jazz Improvisation 1	3
MUAC 3735	Jazz Methods	1

**Select 3 methods courses from the following:**

MUAC 3732	Brass Methods	
MUAC 3733	Woodwind Methods	
MUAC 3734	String Methods	
MUAC 3755	Guitar Class	
MUAC 3759	Voice Class	
MUAC 3763	Percussion Methods	

**Music Education: 10 hours**

MUED 2611	Computer Applications in Music Education	2
MUED 4823	Music Teaching in Early Childhood (Pre K-3)	2
MUED 4824	Music Teaching in the Middle School	2
MUED 4825	Music Teaching in the High School	2
MUED 4821	Instrumental Music Education	2

**College of Education Requirements: 29 hours (must be taken for a grade)**

PSYC 3709	Psychology of Education	3
EDFN 1501	Introduction to Education	3
EDFN 3708	Education and Society	3

TERG 3710	Reading Application in Content Areas, Middle Years <sup>1</sup>	3
SPED 2630	Individuals with Exceptionalities in Society	3
MULT 4807	Teaching Across the Curriculum <sup>1</sup>	2
SED 4844	Supervised Student Teaching: Music (K-12)	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
<b>Total Semester Hours</b>		<b>138</b>

Dana School of Music Requirements:

- Convocation attendance - 36 events
- Recital attendance - 30 events
- Senior Recital (connected to Applied Major 4801)

Students are required to complete the Senior Recital before student teaching.

- <sup>1</sup> Requires College of Education upper-division status.
- <sup>2</sup> A student may satisfy the MATH requirement by passing this course or one of the following alternate courses or its equivalent: MATH 1510, MATH 1511, MATH 1513, MATH 1549, MATH 1552, MATH 1571, MATH 1581H, MATH 1585H, MATH 2625, MATH 2652, MATH 2665, MATH 2670, MATH 2686H, PHIL 2619, or STAT 2601.

## Bachelor of Music in Music Education, Keyboard Track

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
Arts and Humanities (satisfied by 6 hours of MUHL 3771 and MUHL 3772)		
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience (satisfied by 3 MUHL 3773)		
<b>II. Core Music Requirements</b>		
<b>Music Theory: 19 hours</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 3750	Analytical Techniques	3
<b>Music History and Literature: 12 hours</b>		
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
<b>Professional Piano Skills: 4 hours</b>		

MUAC 2691	Professional Piano Skills 1	1
MUAC 2692	Professional Piano Skills 2	1
MUAC 2693	Professional Piano Skills 3	1
MUAC 2694	Professional Piano Skills 4	1
Students may substitute MUIN courses, organ lessons, harpsichord lessons, jazz keyboard lessons, or jazz improvisation for MUAC 2693 and MUAC 2694		

<b>Conducting: 3 hours</b>		
MUCO 3715	Choral and Instrumental Conducting	3
<b>Applied Major: 14 hours</b>		
1501		2
1502		2
2601		2
2602		2
3701		2
3702		2
4801		2
<b>Large Ensembles: 4 hours</b>		
MUEN		1
MUEN		1
MUEN		1
MUEN		1
<b>Methods: 7 hours</b>		
MUAC		1
MUAC		1
MUAC		1
MUAC		1
MUAC		1
MUAC 3759	Voice Class	1
VOIC 1500A	Voice	1
Music Education: 10 hours		
MUED 2611	Computer Applications in Music Education	2
MUED 4823	Music Teaching in Early Childhood (Pre K-3)	2
MUED 4824	Music Teaching in the Middle School	2
MUED 4825	Music Teaching in the High School	2
MUED 4822 or MUED 4821	Teaching Choral Music Instrumental Music Education	2
College of Education Requirements: 29 hours		
EDFN 1501	Introduction to Education	3
SPED 2630	Individuals with Exceptionalities in Society	3
PSYC 3709	Psychology of Education	3
EDFN 3708	Education and Society	3
TERG 3710	Reading Application in Content Areas, Middle Years <sup>1</sup>	3
MULT 4807	Teaching Across the Curriculum <sup>1</sup>	2
SED 4844	Supervised Student Teaching: Music (K-12)	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
<b>Total Semester Hours</b>		<b>133</b>

<sup>1</sup> Requires College of Education upper division status.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
PIAN 1501	Piano	2
ENGL 1550	Writing 1	3
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4

Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531

MUEN 00XX		1
MUAC 2691	Professional Piano Skills 1	1
EDFN 1501	Introduction to Education	3
General Education Elective / First Year Experience		3
<b>Semester Hours</b>		<b>17</b>

**Spring**

PIAN 1502	Piano	2
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2 (Core UD Gateway Course)	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUEN 00XX		1
MUAC 2692	Professional Piano Skills 2	1
SPED 2630	Individuals with Exceptionalities in Society (Core UD Gateway Course)	3
ENGL 1551	Writing 2	3
Gen. Ed. Natural Science + Lab		4
<b>Semester Hours</b>		<b>18</b>

**Year 2**

**Fall**

PIAN 2601	Piano	2
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUEN 00XX		1
MUAC 2693	Professional Piano Skills 3	1
Students may substitute MUIN courses, organ lessons, harpsichord lessons, jazz keyboard lessons, or jazz improvisation for MUAC 2693		
MUED 2611	Computer Applications in Music Education	2
MUAC 3733	Woodwind Methods	1
MUAC 3755	Guitar Class	1
MUHL 3771	Music History and Literature 1	3
CMST 1545	Communication Foundations (Core UD Gateway Course)	3
<b>Semester Hours</b>		<b>18</b>

**Spring**

PIAN 2602	Piano	2
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUHL 3772	Music History and Literature 2	3
General Education Elective		3
MUAC 2694	Professional Piano Skills 4	1
Students may substitute MUIN courses, organ lessons, harpsichord lessons, jazz keyboard lessons, or jazz improvisation for MUAC 2694		
MUEN 00XX		
MUAC 3759	Voice Class	1
MATH 2623	Quantitative Reasoning	3
Application for Upper Division must be completed by this semester		
<b>Semester Hours</b>		<b>17</b>

**Year 3**

**Fall**

PIAN 3701	Piano	2
MUED 4823	Music Teaching in Early Childhood (Pre K-3)	2
MUED 4821 or MUED 4822	Instrumental Music Education or Teaching Choral Music	2

MUTC 3750	Analytical Techniques	3
MUHL 3773	Music History and Literature 3	3
PSYC 1560	General Psychology	3
General Education Elective		3
All convocation requirements must be completed by the end of the 3rd year if students wish to student teach in the spring of the 4th year!		
<b>Semester Hours</b>		<b>18</b>

**Spring**

PIAN 3702	Piano	2
MUED 4824	Music Teaching in the Middle School	2
MUHL 3774	Music History and Literature 4	3
MUEN 00XX		1
PSYC 3709	Psychology of Education	3
VOIC 1500A	Voice	1
MUAC 3732	Brass Methods	1
MUAC 3734	String Methods	1
MUCO 3715	Choral and Instrumental Conducting	3
<b>Semester Hours</b>		<b>17</b>

**Year 4**

**Fall**

Senior Recital MUST be completed by the end of this semester. The following 3 courses MUST be scheduled in the semester prior to student teaching, if student teaching is to take place in the spring. Application to students Due: September 15. Placement meeting with Music Education Coordinator must occur before September 15.

PIAN 4801	Piano	2
EDFN 3708	Education and Society	3
MUAC 3763	Percussion Methods	1
MULT 4807	Teaching Across the Curriculum	2
TERG 3710	Reading Application in Content Areas, Middle Years	3
MUED 4825	Music Teaching in the High School	2
NS Elective		3
<b>Semester Hours</b>		<b>16</b>

**Spring**

SED 4842A	Student Teaching Seminar for Secondary Education	2
SED 4844	Supervised Student Teaching: Music (K-12)	10
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>133</b>

## Bachelor of Music in Music Education, Voice Track

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities (satisfied by 6 hours of MUHL 377x)		
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6

General Education Elective / First-Year Experience

**II. Core Music Requirements**

Applied Major 1501-4801 14

MUTC 1531 Music Theory 1 4  
& MUTC 1541 and Aural Theory 1

Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531

MUTC 1532 Music Theory 2 4  
& MUTC 1542 and Aural Theory 2

Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532

MUTC 2631 Music Theory 3 4  
& MUTC 2641 and Aural Theory 3

MUTC 2632 Music Theory 4 4  
& MUTC 2642 and Aural Theory 4

MUTC 3750 Analytical Techniques 3

MUHL 3771 Music History and Literature 1 3

MUHL 3772 Music History and Literature 2 3

MUHL 3773 Music History and Literature 3 3

MUHL 3774 Music History and Literature 4 3

MUCO 3715 Choral and Instrumental Conducting 3

MUED 2611 Computer Applications in Music Education 2

MUED 4823 Music Teaching in Early Childhood (Pre K-3) 2

MUED 4824 Music Teaching in the Middle School 2

MUED 4825 Music Teaching in the High School 2

MUED 4822 Teaching Choral Music 2

Senior Recital N/  
C

**III. Voice Emphasis**

Large Ensemble 5

Chamber Ensemble 2

MUAC 1581 Class Piano 1 1

MUAC 1582 Class Piano 2 1

MUAC 2681 Class Piano 3 1

MUAC 2682 Class Piano 4 1

MUED 5880 Vocal Pedagogy 1

Diction 1

Methods/Applied Classes 3

**IV. College of Education Licensure Requirements**

PSYC 3709 Psychology of Education 3

EDFN 1501 Introduction to Education 3

EDFN 3708 Education and Society 3

SPED 2630 Individuals with Exceptionalities in Society 3

TERG 3710 Reading Application in Content Areas, Middle Years 3

MULT 4807 Teaching Across the Curriculum 2

SED 4844 Supervised Student Teaching: Music (K-12) 10

SED 4842A Student Teaching Seminar for Secondary Education 2

Students are required to complete the Senior Recital before student teaching.

**Total Semester Hours 134**

**Course Title S.H.**

**Year 1**

**Fall**

Instrument or Voice 1501 2

EDFN 1501 Introduction to Education 3

ENGL 1550 Writing 1 3

MUTC 1531 Music Theory 1 4  
& MUTC 1541 and Aural Theory 1

Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531

MUEN XXXX 1

MATH 2623 Quantitative Reasoning 3

MUAC 1581 Class Piano 1 1

**Semester Hours 17**

**Spring**

Instrument or Voice 1502 2

MUTC 1532 Music Theory 2 4  
& MUTC 1542 and Aural Theory 2

Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532

MUEN XXXX 1

MUAC 1582 Class Piano 2 1

SPED 2630 Individuals with Exceptionalities in Society 3

ENGL 1551 Writing 2 3

Natural Science Elective and Lab 4

**Semester Hours 18**

**Year 2**

**Fall**

Instrument or Voice 2601 2

MUTC 2631 Music Theory 3 4  
& MUTC 2641 and Aural Theory 3

MUEN XXXX 1

MUED 2611 Computer Applications in Music Education 2

MUAC 2681 Class Piano 3 1

MUAC 3733 Woodwind Methods 1

MUAC 3755 Guitar Class 1

CMST 1545 Communication Foundations 3

MUHL 3771 Music History and Literature 1 3

**Semester Hours 18**

**Spring**

Instrument or Voice 2602 2

MUTC 2632 Music Theory 4 4  
& MUTC 2642 and Aural Theory 4

MUHL 3774 Music History and Literature 4 3

General Education Elective 3

MUAC 3763 Percussion Methods 1

MUAC 2682 Class Piano 4 1

Application for Upper Division must be completed by this semester.

MUAC 3735 Jazz Methods 1

**Semester Hours 15**

**Year 3**

**Fall**

Instrument or Voice 3701 2

MUED 4823 Music Teaching in Early Childhood (Pre K-3) 2

MUED 4822 Teaching Choral Music 2

MUEN 0005 Concert Band 1

MUTC 3750 Analytical Techniques 3

General Education Elective 3

PSYC 1560 General Psychology 3

MUHL 3773 Music History and Literature 3 3

All convocation requirements must be completed by the end of 3rd year if students wish to student teach in the spring of 4th year.

**Semester Hours 19**

<b>Spring</b>		
MUED 4824	Music Teaching in the Middle School	2
MUCO 3715	Choral and Instrumental Conducting	3
MUEN XXXX	Chamber Ensemble	1
	General Education Elective	3
PSYC 3709	Psychology of Education	3
	Instrument or Voice 3702	2
MUHL 3774	Music History and Literature 4	3
	General Education Elective	3
<b>Semester Hours</b>		<b>20</b>

<b>Year 4</b>		
<b>Fall</b>		
Senior Recital MUST be completed by the end of this semester. The following 3 courses MUST be scheduled in the semester prior to student teaching, if student teaching is to take place in the spring. Application to student teach due: September 15. Placement meeting with Music Education Coordinator must occur before September 15.		
MULT 4807	Teaching Across the Curriculum	2
TERG 3710	Reading Application in Content Areas, Middle Years	3
MUED 4825	Music Teaching in the High School	2
	Instrument or Voice 4801	2
MUEN 0004	University Chorus	1
EDFN 3708	Education and Society	3
MUAC 3759	Voice Class	1
MUEN 00XX	Chamber Ensemble	1
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
SED 4842A	Student Teaching Seminar for Secondary Education	2
SED 4844	Supervised Student Teaching: Music (K-12)	10
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>134</b>

## Bachelor of Music with an Emphasis in Music Recording Track

Students may pursue a Bachelor of Music in Music Recording with an emphasis in Entrepreneurship, Video Production, and Jazz Studies.

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities (satisfied by 6 hours of MUHL 377x)		0
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		
<b>I. Music Theory</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		

MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 3750	Analytical Techniques	3

<b>II. Music History and Literature</b>		
MUHL 3771 or MUHL 3772	Music History and Literature 1 and Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
MUHL 3775	Jazz History	3

<b>III. Applied Study</b>		
Applied Major Lessons 1501-4801		14
Senior Recital		N/C
MUAC 1581	Class Piano 1	1
MUAC 1582	Class Piano 2	1
MUAC 3781	Jazz Class Piano 1	1
MUAC 3782	Jazz Class Piano 2	1
MUCO 3715	Choral and Instrumental Conducting	3
Large Ensemble (guitar majors substitute Guitar Ensemble)		5
Small Ensemble		2

<b>IV. Audio Engineering and Technology</b>		
MUIN 1561	Music Recording Workshop	4
MUIN 3762	Digital Sound Production	2
MUIN 3763	Digital Recording and Editing	2
MUIN 3764	Advanced Microphone Techniques	2
MUIN 3765	Advanced Recording Techniques	2
MUIN 4866	Recording Internship	3
MUIN 4867	Senior Project	4
Music Electives		15
<b>Total Semester Hours</b>		<b>124</b>

Passed TPE and Audition

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUAC 1581	Class Piano 1	1
MUEN 00XX		1
Instrument 1501		2
General Education Electives		3
<b>Semester Hours</b>		<b>11</b>

<b>Spring</b>		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUAC 1582	Class Piano 2	1
MUEN 00XX		1
Instrument 1502		2

MUIN 1561	Music Recording Workshop	4
Natural Science + Lab		4
<b>Semester Hours</b>		<b>16</b>

**Year 2**

**Fall**

MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUAC 2681	Class Piano 3	1
MUEN 00XX		1
Instrument 2601		2
MUHL 2616	Survey of Jazz	3
MUIN 3762	Digital Sound Production	2
General Education Elective		3
<b>Semester Hours</b>		<b>16</b>

**Spring**

MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUAC 2682	Class Piano 4	1
MUEN 00XX		1
Instrument 2602		2
MUHL 2618	Rock n' Roll to Rock (suggested elective)	3
MUIN 3763	Digital Recording and Editing	2
General Education Elective		3
<b>Semester Hours</b>		<b>16</b>

**Year 3**

**Fall**

MUTC 3750	Analytical Techniques	3
MUHL 3771	Music History and Literature 1	3
MUEN 00XX		1
MUIN 3764	Advanced Microphone Techniques	2
Instrument 3701		2
General Education Elective		6
<b>Semester Hours</b>		<b>17</b>

**Spring**

MUHL 3772	Music History and Literature 2	3
MUEN 00XX		1
MUCO 3715	Choral and Instrumental Conducting	3
MUIN 3765	Advanced Recording Techniques	2
Instrument 3702		2
General Education Elective		6
<b>Semester Hours</b>		<b>17</b>

**Year 4**

**Fall**

MUHL 3773	Music History and Literature 3	3
Instrument 4801		2
MUIN 4866	Recording Internship	3
Music Electives		3
General Education Elective		3
MUEN 00XX		1
<b>Semester Hours</b>		<b>15</b>

**Spring**

MUHL 3775	Jazz History (suggested elective)	3
MUHL 3774	Music History and Literature 4	3
MUIN 4867	Senior Project	4

Music Electives	6
<b>Semester Hours</b>	<b>16</b>
<b>Total Semester Hours</b>	<b>124</b>

## Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.
- Students will record, edit, and produce music.

## Bachelor of Music in Music Performance, Instrumental Track

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities (satisfied by 6 hours of MUHL 377x)		0
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		
<b>II. Core Music Requirements</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 3750	Analytical Techniques	3
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
<b>III. Instrumental Emphasis</b>		
Applied Major 1501-4806		28
Junior/Senior Recitals		N/C
MUAC 1581	Class Piano 1	1
MUAC 1582	Class Piano 2	1
MUAC 2681	Class Piano 3	1
or MUAC 3781	Jazz Class Piano 1	
MUAC 2682	Class Piano 4	1

or MUAC 3782	Jazz Class Piano 2	
Large Ensemble (guitar majors substitute Guitar Ensemble)		8
Chamber Ensemble		2
MUCO 3715	Choral and Instrumental Conducting	3
MUTC/MUHL Theory/History Electives (must represent both areas)		9
Music Electives		11

**Total Semester Hours** 127

Passed TPE and Audition

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUAC 1581	Class Piano 1	1
MUEN 00XX		1
Instrument 1501		2
General Education Electives		3
ENGL 1550	Writing 1	3
<b>Semester Hours</b>		<b>14</b>

<b>Spring</b>		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUAC 1582	Class Piano 2	1
MUEN 00XX		1
Instrument 1502		2
General Education Electives		6
ENGL 1551	Writing 2	3
<b>Semester Hours</b>		<b>17</b>

<b>Year 2</b>		
<b>Fall</b>		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUAC 2681 or MUAC 3781	Class Piano 3 or Jazz Class Piano 1	1
MUEN 00XX		1
Instrument 2605		4
MUHL 3771	Music History and Literature 1	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUAC 2682 or MUAC 3782	Class Piano 4 or Jazz Class Piano 2	1
MUEN 00XX		1
Instrument 2606		4
MUHL 3772	Music History and Literature 2	3
MATH 2623	Quantitative Reasoning	3
<b>Semester Hours</b>		<b>16</b>

<b>Year 3</b>		
<b>Fall</b>		
MUTC 3750	Analytical Techniques	3

MUHL 3773	Music History and Literature 3	3
MUEN 00XX		1
MUEN 00XX Chamber Ensemble		1
Instrument 3705		4
Natural Science + Lab		4
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
MUHL 3774	Music History and Literature 4	3
MUEN 00XX		1
MUEN 00XX Chamber Ensemble		1
Instrument 3706		4
MUCO 3715	Choral and Instrumental Conducting	3
Music Elective		1
General Education Electives		3
<b>Semester Hours</b>		<b>16</b>

<b>Year 4</b>		
<b>Fall</b>		
Music Upper Division Electives		3
MUEN 00XX		1
Instrument 4805		4
Music Electives		5
General Education Electives		3
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
Music Upper Division Electives		6
MUEN 00XX		1
Instrument 4806		4
Music Electives		5
<b>Semester Hours</b>		<b>16</b>
<b>Total Semester Hours</b>		<b>127</b>

## Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.

## Bachelor of Music in Performance, Jazz Track

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities (satisfied by 6 hours of MUHL 377x)		0
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		

**II. Core Music Requirements**

MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 3750	Analytical Techniques	3
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
MUHL 3775	Jazz History	3

Junior/Senior Recitals N/C

**III. Jazz Emphasis**

Applied Major 1501-4804		22
MUAC 1581	Class Piano 1	1
MUAC 1582	Class Piano 2	1
MUAC 3781	Jazz Class Piano 1	1
MUAC 3782	Jazz Class Piano 2	1
MUAC 3735	Jazz Methods	1
MUEN 0023	Jazz Ensemble	5
MUEN 0030	Jazz Combo	5
MUTC 3712	Jazz Arranging 1	3
MUTC 3713	Jazz Arranging 2	3
MUAC 2667	Jazz Improvisation 1	3
MUAC 2668	Jazz Improvisation 2	3
MUAC 4867	Jazz Improvisation 3	3
MUAC 4868	Jazz Improvisation 4	3
MUCO 3715	Choral and Instrumental Conducting	3
MUTC/MUHL Theory/History Elective		3

**Total Semester Hours 126**

Passed TPE and Audition

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUAC 1581	Class Piano 1	1
MUEN 0023 & MUEN 0030	Jazz Ensemble and Jazz Combo	2
Instrument 1501		2
MUAC 3735	Jazz Methods	1
General Education Electives		3
ENGL 1550	Writing 1	3
<b>Semester Hours</b>		<b>16</b>

**Spring**

MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUAC 1582	Class Piano 2	1
MUEN 0023	Jazz Ensemble	1
Instrument 1502		2
General Education Electives		6
ENGL 1551	Writing 2	3

**Semester Hours 17**

**Year 2**

**Fall**

MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUAC 3781	Jazz Class Piano 1	1
MUEN 0023 & MUEN 0030	Jazz Ensemble and Jazz Combo	2
Instrument 2603		3
MUHL 3771	Music History and Literature 1	3
MUAC 2667	Jazz Improvisation 1	3

**Semester Hours 16**

**Spring**

MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUAC 3782	Jazz Class Piano 2	1
MUEN 0023 or MUEN 0030	Jazz Ensemble or Jazz Combo	1
Instrument 2604		3
MUHL 3772	Music History and Literature 2	3
MUAC 2668	Jazz Improvisation 2	3
MATH 2623	Quantitative Reasoning	3

**Semester Hours 18**

**Year 3**

**Fall**

MUTC 3712 or MUAC 4867	Jazz Arranging 1 or Jazz Improvisation 3	3
MUTC 3750	Analytical Techniques	3
MUHL 3773	Music History and Literature 3	3
Instrument 3703		3
MUHL 3775	Jazz History	3
General Education Electives		3

**Semester Hours 18**

**Spring**

MUTC 3713 or MUAC 4868	Jazz Arranging 2 or Jazz Improvisation 4	3
MUHL 3774	Music History and Literature 4	3
MUEN 0030	Jazz Combo	1
General Education Elective		3
Instrument 3704		3
MUCO 3715	Choral and Instrumental Conducting	3

**Semester Hours 16**

**Year 4**

**Fall**

MUTC 3712 or MUAC 4867	Jazz Arranging 1 or Jazz Improvisation 3	3
Instrument 4803		3
MUHL/MUTC Upper Division Electives		3



MUEN 0023 & MUEN 0030	Jazz Ensemble and Jazz Combo	2
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
MUTC 3713 or MUAC 4868	Jazz Arranging 2 or Jazz Improvisation 4	3
MUEN 0030	Jazz Combo	1
Instrument 4804		3
Natural Science + Lab		4
<b>Semester Hours</b>		<b>11</b>
<b>Total Semester Hours</b>		<b>126</b>

## Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.
- Students will perform, improvise, compose, and arrange jazz music.

## Bachelor of Music in Performance, Organ Track

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities (satisfied by 6 hours of MUHL 377x)		0
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		
<b>II. Core Music Requirements</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 3750	Analytical Techniques	3
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3

Junior/Senior Recitals		N/ C
<b>III. Organ Emphasis</b>		
Applied Major 1501-4806		28
MUAC 2691	Professional Piano Skills 1	1
MUAC 2692	Professional Piano Skills 2	1
MUAC 2693	Professional Piano Skills 3	1
MUAC 2694	Professional Piano Skills 4	1
Major Ensemble		4
PIAN 1500A	Piano	1
PIAN 1500B	Piano	1
PIAN 2600A	Piano	1
PIAN 2600B	Piano	1
MUCO 3715	Choral and Instrumental Conducting	3
MUED 5858	Piano Pedagogy	3
Voice Class/Applied Voice		2
MUTC/MUHL Theory/History Electives (must represent both areas)		9
Music Electives		8
<b>Total Semester Hours</b>		<b>127</b>

Passed TPE and Audition

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUEN 00XX		1
MUAC 2691	Professional Piano Skills 1	1
General Education Electives		3
ORGN 1501	Organ	2
ENGL 1550	Writing 1	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUEN 00XX		1
General Education Electives		6
ENGL 1551	Writing 2	3
ORGN 1502	Organ	2
MUAC 2692	Professional Piano Skills 2	1
<b>Semester Hours</b>		<b>17</b>
<b>Year 2</b>		
<b>Fall</b>		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUAC 2693	Professional Piano Skills 3	1
MUHL 3771	Music History and Literature 1	3
General Education Electives		3
CMST 1545	Communication Foundations	3
ORGN 2605	Organ	4
<b>Semester Hours</b>		<b>18</b>

<b>Spring</b>		
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUEN 00XX		1
MUHL 3772	Music History and Literature 2	3
General Education Electives		3
ORGN 2606	Organ	4
MUAC 2694	Professional Piano Skills 4	1
<b>Semester Hours</b>		<b>16</b>

<b>Year 3</b>		
<b>Fall</b>		
MUTC 3750	Analytical Techniques	3
MUHL 3773	Music History and Literature 3	3
Natural Science + Lab		4
PIAN 1500A	Piano	1
MUAC 3759	Voice Class	1
VOIC 1500A	Voice	1
ORGN 3705	Organ	4
<b>Semester Hours</b>		<b>17</b>

<b>Spring</b>		
MUHL 3774	Music History and Literature 4	3
MUCO 3715	Choral and Instrumental Conducting	3
PIAN 1500B	Piano	1
ORGN 3706	Organ	4
MATH 2623	Quantitative Reasoning	3
MUEN 00XX		1
<b>Semester Hours</b>		<b>15</b>

<b>Year 4</b>		
<b>Fall</b>		
Music Upper Division Electives		3
Music Electives		5
PIAN 2600A	Piano	1
ORGN 4805	Organ	4
MUED 5858	Piano Pedagogy	3
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
Music Upper Division Electives		6
Music Electives		3
PIAN 2600B	Piano	1
ORGN 4806	Organ	4
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>127</b>

## Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.

## Bachelor of Music in Performance, Piano Track

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities (satisfied by 6 hours of MUHL 377x)		0
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		
<b>II. Core Music Requirements</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 3750	Analytical Techniques	3
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
Junior/Senior Recitals		N/C
<b>III. Piano Emphasis</b>		
Applied Major 1501-4806		28
MUAC 2691	Professional Piano Skills 1	1
MUAC 2692	Professional Piano Skills 2	1
MUAC 2693	Professional Piano Skills 3	1
MUAC 2694	Professional Piano Skills 4	1
Large Ensemble		4
Piano Chamber Ensemble		4
MUCO 3715	Choral and Instrumental Conducting	3
MUED 5858	Piano Pedagogy	3
Voice Class/Applied Voice		2
MUTC/MUHL Theory/History Electives (must represent both areas)		9
Music Electives		8
<b>Total Semester Hours</b>		<b>127</b>

Passed TPE and Audition

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUAC 1581	Class Piano 1	1
MUEN 00XX		1
PIAN 1501	Piano	2

General Education Electives		3
ENGL 1550	Writing 1	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUAC 1582	Class Piano 2	1
MUEN 00XX		1
General Education Electives		6
ENGL 1551	Writing 2	3
PIAN 1502	Piano	2
<b>Semester Hours</b>		<b>17</b>
<b>Year 2</b>		
<b>Fall</b>		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUAC 2681	Class Piano 3	1
MUEN 00XX		1
MUHL 3771	Music History and Literature 1	3
CMST 1545	Communication Foundations	3
PIAN 2605	Piano	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUAC 2682	Class Piano 4	1
MUEN 00XX		1
MUHL 3772	Music History and Literature 2	3
General Education Electives		3
PIAN 2606	Piano	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
MUTC 3750	Analytical Techniques	3
MUHL 3773	Music History and Literature 3	3
Natural Science + Lab		4
MUEN 0051	Piano Chamber	1
PIAN 3705	Piano	4
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MUHL 3774	Music History and Literature 4	3
MUCO 3715	Choral and Instrumental Conducting	3
PIAN 3706	Piano	4
MUEN 0051	Piano Chamber	1
MUED 5858	Piano Pedagogy	3
MUAC 3759	Voice Class	1
VOIC 1500A	Voice	1
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
Music Upper Division Electives		3
Music Electives		5
PIAN 4805	Piano	4
MUEN 0051	Piano Chamber	1
MATH 2623	Quantitative Reasoning	3

General Education Electives		3
<b>Semester Hours</b>		<b>19</b>
<b>Spring</b>		
Music Upper Division Electives		6
Music Electives		3
PIAN 4806	Piano	4
MUEN 0051	Piano Chamber	1
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>127</b>

## Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.

## Bachelor of Music in Performance, Voice Track

COURSE	TITLE	S.H.
<b>I. General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities (satisfied by 6 hours of MUHL 377x)		0
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		
<b>II. Core Music Requirements</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUTC 3750	Analytical Techniques	3
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
Junior/Senior Recitals		N/ C
<b>III. Voice Emphasis</b>		
Applied Major 1501-4806		28
MUAC 1581	Class Piano 1	1
MUAC 1582	Class Piano 2	1
MUAC 2681	Class Piano 3	1
or MUAC 3781	Jazz Class Piano 1	

MUAC 2682	Class Piano 4	1
or MUAC 3782	Jazz Class Piano 2	
Large Ensemble		5
Chamber Ensemble		2
MUCO 3715	Choral and Instrumental Conducting	3
MUED 5880	Vocal Pedagogy	1
MUAC 1556	Singer's Diction: English/Italian	1
MUAC 1557	Singer's Diction: German	1
MUAC 1558	Singer's Diction: French	1
MUTC/MUHL Theory/History Electives (must represent both areas)		6
Italian/French/German		12
<b>Total Semester Hours</b>		<b>126</b>

Passed TPE and Audition

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531		
MUAC 1581	Class Piano 1	1
MUEN 00XX		1
General Education Electives		
VOIC 1501	Voice	2
ENGL 1550	Writing 1	3
<b>Semester Hours</b>		<b>14</b>

<b>Spring</b>		
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532		
MUAC 1582	Class Piano 2	1
MUEN 00XX		1
General Education Electives		
ENGL 1551	Writing 2	3
VOIC 1502	Voice	2
<b>Semester Hours</b>		<b>17</b>

<b>Year 2</b>		
<b>Fall</b>		
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUAC 2681 or MUAC 3781	Class Piano 3 or Jazz Class Piano 1	1
MUEN 00XX		1
MUHL 3771	Music History and Literature 1	3
General Education Electives		
CMST 1545	Communication Foundations	3
VOIC 2605	Voice	2
<b>Semester Hours</b>		<b>17</b>

<b>Spring</b>		
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUAC 2682 or MUAC 3782	Class Piano 4 or Jazz Class Piano 2	1
MUEN 00XX		1
MUHL 3772	Music History and Literature 2	3

General Education Electives		3
VOIC 2606	Voice	2
<b>Semester Hours</b>		<b>14</b>

<b>Year 3</b>		
<b>Fall</b>		
MUTC 3750	Analytical Techniques	3
MUHL 3773	Music History and Literature 3	3
MUEN 00XX		1
MUEN 00XX Chamber Ensemble		1
Natural Science + Lab		
VOIC 3705	Voice	4
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
MUHL 3774	Music History and Literature 4	3
MUEN 00XX Chamber Ensemble		1
MUCO 3715	Choral and Instrumental Conducting	3
VOIC 3706	Voice	4
ITAL 1550	Elementary Italian	4
<b>Semester Hours</b>		<b>15</b>

<b>Year 4</b>		
<b>Fall</b>		
Music Upper Division Electives		
VOIC 4805	Voice	4
MUAC 1558	Singer's Diction: French	1
MUED 5880	Vocal Pedagogy	1
FRNC 1550	Elementary French	4
MATH 2623	Quantitative Reasoning	3
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
Music Upper Division Electives		
VOIC 4806	Voice	4
MUAC 1556	Singer's Diction: English/Italian	1
MUAC 1557	Singer's Diction: German	1
GRMN 1550	Elementary German	4
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>122</b>

## Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.

## Minor in Music

The following courses are for the student who has a requirement of study on a secondary instrument or voice or who does not meet the standards required in the major courses. No seminar is required. Initial enrollment is contingent upon successful completion of an audition.

COURSE	TITLE	S.H.
<b>Lower-Division Courses</b>		
Select 8 s.h. from the following:		8

MUTC 1531N Music Theory 1 Intensive and Aural Theory 1 4

Students may take MUTC 1531 instead of MUTC 1531N with permission of the instructor

Any Dana School of Music Ensemble (may be repeated)

MUAC 1500 Minor Applied Study (taken two times)

MUAC 2600 Minor Applied Study (taken two times)

MUED 2611 Computer Applications in Music Education

MUHL 2616 Survey of Jazz

MUHL 2617 Film Music

MUHL 2618 Rock n' Roll to Rock

MUHL 2619 Music of Non-Western Societies

MUHL 2621 Music Literature and Appreciation

MUHL 2622 Popular Music in America

MUTC 1532 Music Theory 2

MUTC 2631 Music Theory 3

MUTC 2632 Music Theory 4

#### Upper-Division Courses

Select 6 s.h. from the following: 6

MUHL 3771 Music History and Literature 1

MUHL 3772 Music History and Literature 2

MUHL 3773 Music History and Literature 3

MUHL 3774 Music History and Literature 4

MUTC 3700 Music Theory Elective

MUTC 5800 Music Theory Elective

MUED 3722 Music in Early Childhood

MUHL 5800 Music History Elective

**Total Semester Hours** 18

## Department of Theater and Dance

(330) 941-3810

The Department of Theater and Dance offers coursework leading to the following degrees:

- Bachelor of Arts in Theater Studies with concentrations in Acting/Directing, Design/Tech, or Film Studies
- Bachelor of Arts in Dance Management
- Bachelor of Fine Arts in Musical Theater
- Minor in Theater Studies, Dance, or Film

All theater programs are fully accredited by the National Association of Schools of Theatre (NAST).

## Learning Outcomes

The student learning outcomes for the major in theater are as follows:

- **Public Performances** – Students demonstrate competence in the creation and presentation of public theater events, either as performers, designers, or technicians.
- **Knowledge of History and Cultural Dimensions** – Students demonstrate knowledge of the history and cultural influences of and upon the institution of theater throughout the ages.
- **Informed Assessments of Quality** – Students demonstrate the ability to critically evaluate works of theater.
- **Critical Thinking** – Students demonstrate the ability to define a desired goal in creating a work of theater and find solutions to achieve that goal.

In addition to the above outcomes, learning outcomes in musical theater also include:

- **Musical Knowledge** – Students demonstrate an understanding of music theory, the keyboard, and the ability to read music.
- **Vocal Competence** – Students demonstrate an ability to sing and act a musical selection in the musical theater style.

## Professional Societies

### Alpha Psi Omega

The Department of Theater and Dance is a member of Alpha Psi Omega, the National Honorary Dramatics Fraternity. Students may become members of the local chapter by:

- achieving the prescribed cumulative grade average
- earning a prescribed number of points through participation in dramatic activities

Membership requires sophomore standing.

#### Chair

**Matthew Mazuroski**, M.F.A., Associate Professor, Chair

#### Professor

**Christine Cobb**, M.A., Professor

**Maria Fenty Denison**, D.M.A., Assistant Professor

**Todd Dicken**, M.F.A., Assistant Professor

**Katherine N. Garlick**, M.F.A., Assistant Professor

**Christopher Austin Hill**, Ph.D., Assistant Professor

## Majors

- Bachelor of Arts in Theater Studies (p. 273)
- Bachelor of Fine Arts in Theater (p. 279)
- Bachelor of Fine Arts in Musical Theater (p. 277)
- Bachelor of Arts in Dance Management (p. 272)

## Minors

- Minor in Theater (p. 280)
- Minor in Dance (p. 279)

## Dance

### DNCE 1540 Modern Dance 1 1 s.h.

Elementary techniques of body movement. Rhythmic fundamentals and improvisation.

### DNCE 1541 Modern Dance 2 2 s.h.

Intermediate modern dance techniques, composition, and improvisation. May be repeated up to six credit hours.

**Prereq.:** DNCE 1540 or permission of instructor.

### DNCE 1542 Dance Composition 2 s.h.

Basic principles related to the form and structure of dance composition.

**Prereq.:** DNCE 1541 or permission of instructor.

### DNCE 1550 Wellness for Actors and Dancers 1 s.h.

Conditioning, relaxation, and injury prevention techniques related to the needs of dancers and actors.

**Prereq.:** 2 hours credit in any jazz, ballet, or modern dance technique classes or permission of instructor.

### DNCE 1565 Topics in Dance 1-2 s.h.

Selected topics in the practice, theory or scholarship of dance. May be repeated if the topic is different.

**DNCE 1565F Topics in Dance Dance Repertoire 1-2 s.h.**

Selected topics in the practice, theory or scholarship of dance. May be repeated if the topic is different.

**DNCE 1570 Tap and Jazz 1 1 s.h.**

Principles and practices of the basic techniques of tap dance, soft shoe, jazz, and the fundamental forms of dance movement found in musical theater.

**DNCE 1571 Tap and Jazz 2 2 s.h.**

Further refinement and development of jazz and tap skills. This course may be repeated up to six credit hours.

**Prereq.:** DNCE 1570 or permission of instructor.

**DNCE 1572 Ballet 1 1 s.h.**

Theory and practice of classical ballet with emphasis on body placement and muscular awareness. Fundamentals of vocabulary, structure, and placement.

**DNCE 1573 Ballet 2 2 s.h.**

Expands on vocabulary and established patterns of balletic movement. This course may be repeated up to six credit hours.

**Prereq.:** DNCE 1572 or permission of instructor.

**DNCE 2606 Creative Dance for Children 1 s.h.**

Skills and methods development, and the learning process as it applies to teaching children's dance and creative movement.

**Prereq.:** Sophomore standing or permission of the instructor.

**DNCE 2662 Practicum in Theater and Dance 1 s.h.**

Practical application of theater or dance skills through participation in special programming of the department, or specified studio/laboratory activities.

Expected participation should amount to a minimum of thirty hours per semester. May be repeated for a maximum of 5 s.h.

**Prereq.:** THTR 1561 or special permission.

**Cross-listed:** THTR 2662.

**DNCE 2680 Tap Dance 3 2 s.h.**

Intermediate/advanced tap skills, with emphasis on speed, clarity of sound, and improvisation.

**Prereq.:** DNCE 1571 or permission of the instructor.

**DNCE 2698 Survey of Dance 3 s.h.**

The role of dance in culture and history, tracing the evolution of various folk, social, and concert forms. Structural and stylistic elements important for the appreciation of movement and dance.

**Gen Ed:** Arts and Humanities.

**DNCE 3730 Music for Dance 2 s.h.**

Designed to provide the dance student with basic musical knowledge and skills necessary for quality dance performance, production, and accompaniment.

**Prereq.:** Minimum of 6 hours coursework in DNCE.

**DNCE 3751 Modern Dance 3 2 s.h.**

Intermediate/advanced techniques in modern dance designed to develop professional performance quality. May be repeated up to six credit hours.

**Prereq.:** DNCE 1541 or consent of the instructor.

**DNCE 3767 Choreography for Musical Theater 2 s.h.**

The study of dance, movement, and staging for the musical theater, culminating in student choreographed/staged works from a variety of musical theater productions.

**Prereq.:** DNCE 1540 and DNCE 1570, DNCE 1572.

**DNCE 3770 Jazz Dance 3 2 s.h.**

Intermediate/advanced level class building upon a strong foundation in jazz dance. Refinement of technical and artistic proficiency. May be repeated for a maximum of 6 credit hours.

**Prereq.:** DNCE 1571 or permission of the instructor.

**DNCE 3781 Ballet 3 2 s.h.**

Intermediate/advanced course building upon skills acquired in Ballet 1 and 2. Designed to enhance technique and artistry. May be repeated for a maximum of six credit hours.

**Prereq.:** DNCE 1573 or consent of the instructor.

**DNCE 3791 Dance Participation 1 s.h.**

Involvement with the Dance Ensemble rehearsal process and performance. Must be taken seven semesters during the time a student is a dance major.

**Concurrent with:** DNCE 1540 or DNCE 1570 or DNCE 1572 or by audition.

**DNCE 3791A Dance Participation 1 s.h.**

Involvement with the Dance Ensemble rehearsal process and performance. Must be taken seven semesters during the time a student is a dance major.

**Concurrent with:** DNCE 1540 or DNCE 1570 or DNCE 1572 or by audition.

**DNCE 3791B Dance Participation 1 s.h.**

Involvement with the Dance Ensemble rehearsal process and performance. Must be taken seven semesters during the time a student is a dance major.

**Concurrent with:** DNCE 1540 or DNCE 1570 or DNCE 1572 or by audition.

**DNCE 3791C Dance Participation 1 s.h.**

Involvement with the Dance Ensemble rehearsal process and performance. Must be taken seven semesters during the time a student is a dance major.

**Concurrent with:** DNCE 1540 or DNCE 1570 or DNCE 1572 or by audition.

**DNCE 3791D Dance Participation 1 s.h.**

Involvement with the Dance Ensemble rehearsal process and performance. Must be taken seven semesters during the time a student is a dance major.

**Concurrent with:** DNCE 1540 or DNCE 1570 or DNCE 1572 or by audition.

**DNCE 3791E Dance Participation 1 s.h.**

Involvement with the Dance Ensemble rehearsal process and performance. Must be taken seven semesters during the time a student is a dance major.

**Concurrent with:** DNCE 1540 or DNCE 1570 or DNCE 1572 or by audition.

**DNCE 3791F Dance Participation 1 s.h.**

Involvement with the Dance Ensemble rehearsal process and performance. Must be taken seven semesters during the time a student is a dance major.

**Concurrent with:** DNCE 1540 or DNCE 1570 or DNCE 1572 or by audition.

**DNCE 3791G Dance Participation 1 s.h.**

Involvement with the Dance Ensemble rehearsal process and performance. Must be taken seven semesters during the time a student is a dance major.

**Concurrent with:** DNCE 1540 or DNCE 1570 or DNCE 1572 or by audition.

**DNCE 4871 Jazz Dance 4 2 s.h.**

Refinement of skills and artistic qualities essential for the performance of jazz dance repertory at a pre-professional level. May be repeated for a maximum of 6 credit hours.

**Prereq.:** DNCE 3770 or permission of the instructor.

**DNCE 4881 Ballet 4 2 s.h.**

Advanced-level movement skills and terminology. Skills increase in speed, complexity, and duration. This course may be repeated for a maximum of 6 credit hours.

**Prereq.:** DNCE 3781 or permission of instructor.

**DNCE 4885 Dance Kinesiology 3 s.h.**

Anatomy and kinesiology for the dancer, common injuries in dance and their care and prevention, study of physiological support systems, as well as applied knowledge of one's body potential and limitations in dance.

**Prereq.:** junior/senior standing or consent of instructor.

**DNCE 4892 Pedagogy of Dance Technique 3 s.h.**

The theory and practice of sound dance teaching methods. An outside field experience in teaching dance will be required. Senior standing.

**Prereq.:** Completion of minimum of 2 hours of dance technique in each of the following forms: Modern, Ballet and Jazz (satisfied by the completion of course work in those areas or by permission of the instructor), plus DNCE 1550, DNCE 2606, DNCE 3730 and DNCE 4885.

**DNCE 4898 Senior Project 3 s.h.**

Capstone experience expected of all students in the major. Significant demonstration of practical or scholarly ability in Dance choreography and/or pedagogy.

**Prereq.:** Senior standing.

## Theater

### THTR 1512 Survey of Musical Theater 3 s.h.

The history and development of the musical theater genre, including an in-depth study of significant works and individual practitioners.

**Gen Ed:** Arts and Humanities.

### THTR 1559 Play Production 3 s.h.

An introduction to the processes of analyzing, directing, staging, and producing plays; demonstration and practice.

### THTR 1560 Understanding Theater 3 s.h.

The theory, history, cultural role, and physical characteristics of the theater as an institution in human society.

**Gen Ed:** Arts and Humanities.

### THTR 1561 Stagecraft 3 s.h.

The technical elements of play production, with emphasis on stage mechanics, set construction, and scene painting.

### THTR 1563 Costume Construction and Craft 3 s.h.

Introduction to stage costuming through the study and application of costume construction techniques and costume crafts, the use of appropriate equipment, and costume maintenance through various projects involving the special techniques used for stage costuming.

### THTR 1590 History of Motion Pictures 3 s.h.

The history of the motion picture from its beginnings to the present, with emphasis on the milestones of film as a performing art. Viewing of significant films from various periods and countries.

**Gen Ed:** Arts and Humanities.

### THTR 2600 Theater Participation 1 s.h.

Expected involvement in the main stage productions of the department. Students will audition for all main stage productions, or accept a significant assignment in stage management, costume, scenery, lighting or other technical element of production. Must be taken once each semester during the time that a student is in residence as a theater major, for a minimum of 3, or its equivalent.

**Prereq.:** a declared major in theater, and faculty permission.

### THTR 2600A Theater Participation 1 s.h.

Expected involvement in the main stage productions of the department. Students will audition for all main stage productions, or accept a significant assignment in stage management, costume, scenery, lighting or other technical element of production. Must be taken once each semester during the time that a student is in residence as a theater major, for a minimum of 3, or its equivalent.

**Prereq.:** a declared major in theater, and faculty permission.

### THTR 2600B Theater Participation 1 s.h.

Expected involvement in the main stage productions of the department. Students will audition for all main stage productions, or accept a significant assignment in stage management, costume, scenery, lighting or other technical element of production. Must be taken once each semester during the time that a student is in residence as a theater major, for a minimum of 3, or its equivalent.

**Prereq.:** a declared major in theater, and faculty permission.

### THTR 2600C Theater Participation 1 s.h.

Expected involvement in the main stage productions of the department. Students will audition for all main stage productions, or accept a significant assignment in stage management, costume, scenery, lighting or other technical element of production. Must be taken once each semester during the time that a student is in residence as a theater major, for a minimum of 3, or its equivalent.

**Prereq.:** a declared major in theater, and faculty permission.

### THTR 2607 Puppetry 3 s.h.

An overview of the history of puppets in world drama, combined with practical exercises in making inanimate objects come to "life" for the purpose of creating works of theater. Includes puppet construction and performance.

**Prereq.:** Sophomore standing.

### THTR 2661 Stage Management 1 s.h.

Basic principles and techniques of stage management including job functions and responsibilities, production organization, problem solving and specialized paperwork. Stage management of a production and one hour lecture per week. Stage management of a production is a requirement of the class. Grade: Traditional/PR.

**Prereq.:** THTR 1559.

### THTR 2662 Practicum in Theater and Dance 1 s.h.

Practical application of theater or dance skills through participation in special programming of the department, or specified studio/laboratory activities.

Expected participation should amount to a minimum of thirty hours per semester. May be repeated for a maximum of 5 s.h. CROSS LISTED WITH DNCE 2662.

**Prereq.:** THTR 1561 or THTR 1559 or special permission.

### THTR 2664 Musical Theater Lab 1 s.h.

Applied skills course dealing with styles and techniques of performing for the musical theater. Covers auditioning, rehearsal process, and expressive delivery and gesture through song. Culminates in public recital.

**Prereq. or concurrent** THTR 2668 and VOIC 1501T or other evidence of vocal training; and sophomore standing.

### THTR 2667 Acting 2: Voice for the Actor 3 s.h.

Technical elements of voice for the stage. Physical exercises designed to improve stage speech, vocal projection, articulation and clarity. Application of principles and skills to a variety of texts from a performer's perspective.

**Prereq.:** THTR 2668.

### THTR 2668 Acting 1: Fundamentals 3 s.h.

The fundamental theories and techniques of acting. Major emphasis on theater acting, but consideration is given to radio and television acting.

**Prereq.:** THTR 1559 or permission of instructor.

### THTR 2670 Oral Interpretation 3 s.h.

The development of skills necessary for the oral interpretation of various types of literature: prose, poetry, and drama. The thorough analysis of each work and communication of the work to an audience.

### THTR 2690 The Art of Motion Pictures 3 s.h.

Analysis of the structure of the motion picture, the development of the script, the function of editing, the approach to acting in film production, and the problems faced by a director in film production. Criteria of artistic film making. Examples from motion pictures are screened and discussed.

**Prereq.:** Sophomore standing.

**Gen Ed:** Arts and Humanities.

### THTR 3700 Theater Participation 2 1 s.h.

Advanced involvement in the main stage productions of the department. Students will audition for all main stage productions, or accept a significant assignment in stage management, costume, scenery, lighting or other technical element of production. Must be taken each semester during the time that a student is in junior/senior residence as a theater major, for a minimum of 4 or its equivalent.

**Prereq.:** 3 s.h. of THTR 2600 or permission of the instructor.

### THTR 3700A Theater Participation 2 1 s.h.

Advanced involvement in the main stage productions of the department. Students will audition for all main stage productions, or accept a significant assignment in stage management, costume, scenery, lighting or other technical element of production. Must be taken each semester during the time that a student is in junior/senior residence as a theater major, for a minimum of 4 or its equivalent.

**Prereq.:** 3 s.h. of THTR 2600 or permission of the instructor.

### THTR 3700B Theater Participation 2 1 s.h.

Advanced involvement in the main stage productions of the department. Students will audition for all main stage productions, or accept a significant assignment in stage management, costume, scenery, lighting or other technical element of production. Must be taken each semester during the time that a student is in junior/senior residence as a theater major, for a minimum of 4 or its equivalent.

**Prereq.:** 3 s.h. of THTR 2600 or permission of the instructor.

**THTR 3700C Theater Participation 2 1 s.h.**

Advanced involvement in the main stage productions of the department. Students will audition for all main stage productions, or accept a significant assignment in stage management, costume, scenery, lighting or other technical element of production. Must be taken each semester during the time that a student is in junior/senior residence as a theater major, for a minimum of 4 or its equivalent.

**Prereq.:** 3 s.h. of THTR 2600 or permission of the instructor.

**THTR 3700D Theater Participation 2 1 s.h.**

Advanced involvement in the main stage productions of the department. Students will audition for all main stage productions, or accept a significant assignment in stage management, costume, scenery, lighting or other technical element of production. Must be taken each semester during the time that a student is in junior/senior residence as a theater major, for a minimum of 4 or its equivalent.

**Prereq.:** 3 s.h. of THTR 2600 or permission of the instructor.

**THTR 3701 Professional Preparation 2 s.h.**

This course covers topics vital to preparation for the business of professional theater. Contracts, taxes, marketing, resumes, e-portfolios, interviewing, job hunting and legal considerations are among several topics to be discussed.

**Prereq.:** THTR 1560, THTR 1561, or THTR 2668 and junior standing as theater major.

**THTR 3761 Stage Makeup 3 s.h.**

Design and application of makeup for the stage including techniques for character and age makeup, making and applying facial hair, and other specialized makeup procedures.

**Prereq.:** THTR 1559 or permission of instructor.

**THTR 3762 Directing 1 3 s.h.**

An intensive study of the process of directing plays. Whenever possible, students direct the equivalent of a one-act play for public presentation. Lab hours by arrangement.

**Prereq.:** THTR 1559 and THTR 3768 or concurrently or permission of instructor.

**THTR 3763 Scene Design 3 s.h.**

The history of design in terms of stage scenery; an investigation of current trends, techniques, and media; practical execution of models and sketches by the student.

**Prereq.:** THTR 1559 and THTR 1561 or consent of the instructor.

**THTR 3764 History of Stage Costume 3 s.h.**

A survey of stage costumes based on western styles from the ancient Egyptians to the present with emphasis on periods in which the theater flourished.

**Prereq.:** THTR 1559 or permission of instructor.

**THTR 3765 Lighting Design 3 s.h.**

A study of historical development, basic electrical theory, switch boards and lighting instruments; color theory, principles and practices in stage lighting. Lab hours to be arranged.

**Prereq.:** THTR 1559 and THTR 1561 or consent of instructor.

**THTR 3766 Stage Combat 3 s.h.**

Applied skills class specializing in armed and unarmed combat for the stage. Safety factors in stage fighting, including safe use of rapier and dagger. Performance in public required.

**Prereq.:** THTR 2668 or MUEN 0012 or KSS 1514 or permission of instructor.

**THTR 3768 Script Analysis 3 s.h.**

Critical approaches to dramatic literature. Analysis of dramatic works for production values.

**Prereq.:** THTR 1559 and THTR 2668 or permission of instructor.

**THTR 3769 Costume Design 3 s.h.**

Costume design for the stage through a study of script analysis, design concepts and principles, and costume rendering techniques.

**Prereq.:** THTR 1559 or permission of instructor.

**THTR 3791 Rehearsal and Performance 3 s.h.**

Faculty-supervised study and practical demonstration of a theater or dance performance. Credit given for significant acting or dancing roles, assistant directing, or stage management assignments in Department of Theater and Dance programming. For students with appropriate experience. May be taken twice.

**Prereq.:** THTR 2668 or DNCE 1542 and faculty approval.

**THTR 3792 Projects in Production 3 s.h.**

Faculty-supervised study resulting in the design and/or execution of scenery, lighting, or costumes for public performance. For students with appropriate experience. May be taken twice.

**Prereq.:** THTR 3763 or THTR 3765 or THTR 3769 and theater faculty committee approval.

**THTR 4860 Theater History after 1700 3 s.h.**

History of the physical theater and representative dramatic texts from 1700 to the modern era.

**Prereq.:** 9 s.h. of THTR coursework, 3 of which must be upper division.

**THTR 4863 Acting 3: Styles 3 s.h.**

A study of specific theories, techniques, and approaches to creating the various styles of acting. Emphasis on scene study featuring important historical styles of performance.

**Prereq.:** THTR 1559 and THTR 2668.

**THTR 4866 Summer Theater Workshop 1-3 s.h.**

Participation in the summer theater program involving all aspects of theatrical production. Positions of significant responsibility.

**Prereq.:** Junior standing in Theater, or permission of instructor.

**THTR 4868 Children's Theater 3 s.h.**

A study of the process of theater production by and for elementary school children, including theory, objectives, and methods.

**Prereq.:** THTR 3762 or senior standing in Elementary Education with permission of instructor.

**THTR 4869 Creative Dramatics 3 s.h.**

Basic elements of playmaking, improvisation, story dramatization, pantomime, dialogue, and characterization. Experience with area school children provided when possible. Intended for elementary education majors and drama certification.

**Prereq.:** Junior standing with 9 s.h. of theater courses (including THTR 1559 and THTR 2668) or junior standing in Elementary Education with permission of instructor.

**THTR 4870 Acting 4: Acting on Camera 3 s.h.**

A exploration of the theory and technique of film and video performance, and the special demands they make upon an actor.

**Prereq.:** THTR 2668 and THTR 2667 and junior standing, or consent of instructor.

**THTR 4891 Theater History Before 1700 3 s.h.**

History of the physical theater and representative dramatic texts from the Classical period through the Renaissance.

**Prereq.:** 9 s.h. of THTR coursework, 3 of which must be upper division.

**THTR 4893 Independent Study in Theater 1-3 s.h.**

Independent work in theater production under faculty/staff guidance. Intended as a continuation of individualized creative work beyond THTR 3791 or THTR 3792. Project dependent upon approval of the evaluating faculty member and the student. May be repeated with different topics for a total of 9 s.h.

**Prereq.:** THTR 3791 or THTR 3792.

**THTR 4895 Arts in Education Internship: Theater 1-3 s.h.**

A practical application of drama/theater in education theories and skills in a field-based lab experience in the schools. Students submit project proposals geared either to the elementary or secondary level. Proposals must be approved by a theater faculty committee. Repeatable for a total of 6 s.h.

**Prereq.:** THTR 1561, THTR 1559 and THTR 3762; or THTR 1559, THTR 3761 and THTR 4868.



**THTR 4898 Senior Project 3 s.h.**

Capstone experience expected of all seniors in the degree programs of the department. Significant demonstration of practical or scholarly ability in one of the sub-disciplines comprising the disciplines of theater or dance, and showing evidence of solid writing, speaking, and critical thinking skills. Grading is A,B,C,NC/PR.

**Prereq.:** Senior standing with the expectation of graduating by the end of the following semester.

**Gen Ed:** Capstone.

**THTR 4899 Topics in Theater 3 s.h.**

In-depth study of selected aspects in theater scholarship, theory or practice. May be repeated if the topic changes.

**Prereq.:** Junior standing or permission of instructor.

**THTR 4899N Topics in Theater: Irish Drama, Literature, and History 3 s.h.**

In-depth study of selected aspects in theater scholarship, theory or practice. May be repeated if the topic changes.

**Prereq.:** Junior standing or permission of instructor.

**THTR 5864 Directing 2 3 s.h.**

A study of specific theories, techniques, and various important styles in play directing.

**Prereq.:** THTR 1559 and THTR 3762.

## Bachelor of Arts in Dance Management

This is an interdisciplinary degree combining a solid selection of practical dance coursework and a protocol of management and entrepreneurial studies offered by the Williamson College of Business Administration. It is designed to provide skills applicable to teaching dance with an understanding of basic practices related to creating or managing a small business such as a dance studio or performance company.

### Important Notes

- View the *Undergraduate Catalog* for information including course descriptions and prerequisites, major and minor requirements, academic policies, etc.
- Check the *Undergraduate Catalog* for course prerequisites; classes taken out of sequence will not count toward graduation.
- A grade of "C" or better is required in all required major and minor courses. Courses taken as "CR/NC" will not count towards the major or minor.
- Courses cannot count toward both the major and minor.
- Courses taken for the major and minor may be applied toward satisfying General Education requirements but credit hours cannot be double counted.
- Course numbers of 3700 and higher are considered upper-division courses.
- You must complete coursework totaling a minimum of 124 s.h. to graduate (at least 60 s.h. must be completed at the 2600 level or higher and 48 s.h. must be at the 3700 level or higher).
- The following courses do NOT count as hours toward graduation:

COURSE	TITLE	S.H.
MATH 1501	Elementary Algebraic Models	5
MATH 1507	Intermediate Algebra	3
ENGL 1509	Academic English for Non-native Speakers	3
ENGL 1512	English Conversation for Non-native Speakers	1
ENGL 1539	Fundamentals of College Writing	4
ENGL 1540	Introduction to College Writing	3
RSS 1510A	Advanced College Success Skills	3
RSS 1510B	Basic College Success Skills	3
RSS 1510C	STEM Advanced College Success Skills	4

- The residency rule states that the last 30 s.h. of your degree and at least 16 s.h. in your major and 21 s.h. in upper-division courses must be completed at YSU.
- Eligibility to continue receiving federal financial aid is affected by your "satisfactory academic progress." Carefully review details on the Office of Financial Aid and Scholarship (<http://cfweb.cc.ysu.edu/finaid>) website.
- Meet with your advisor on a regular basis to ensure you are meeting requirements for graduation.

## Graduation Process

### • One Year Before Expected Graduation

- Request a Graduation Evaluation
- When your evaluation is complete, make an appointment with the chairperson of your department.

### • Semester You Plan To Graduate

- Apply for graduation during the *first three weeks of the semester* you plan to graduate (you must have a graduation evaluation completed in advance).

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities (Must take THTR 1560 & THTR 1590)		6
FNLG 1550	Elementary Foreign Language	4
FNLG 2600	Intermediate Foreign Language	4
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective (Must take DNCE 2698. Credit Hours Appear under Major Requirements)		
<b>Major Requirements</b>		
DNCE 1541	Modern Dance 2	2
DNCE 1542	Dance Composition	2
DNCE 1550	Wellness for Actors and Dancers	1
DNCE 1565	Topics in Dance	1
DNCE 1571	Tap and Jazz 2	2
DNCE 1573	Ballet 2	2
DNCE 2606	Creative Dance for Children	1
DNCE 2680	Tap Dance 3	2
DNCE 2698	Survey of Dance	3
DNCE 3730	Music for Dance	2
DNCE 3751	Modern Dance 3	2
DNCE 3767	Choreography for Musical Theater	2
DNCE 3770	Jazz Dance 3	2
DNCE 3781	Ballet 3	2
<b>Dance Participation DNCE 3791 must be taken 7 times</b>		7
DNCE 4871	Jazz Dance 4	2
DNCE 4881	Ballet 4	2
DNCE 4885	Dance Kinesiology	3
DNCE 4892	Pedagogy of Dance Technique	3
DNCE 4898	Senior Project	3
<b>Theater Sequence</b>		
THTR 1561	Stagecraft (take THTR 1560 first)	3
THTR 1563	Costume Construction and Craft	3

THTR 2668	Acting 1: Fundamentals	3
THTR 3761	Stage Makeup	3
THTR 3765	Lighting Design	3
<b>Business Sequence</b>		
BUS 1500	Exploring Business	3
ENT 3700	Entrepreneurship New Venture Creation	3
ENT 4800	Entrepreneurship-Business Plan Development	3
MGT 3725	Fundamentals of Management	3
MKTG 3740	Professional Selling	3
Select one of the following:		3
MKTG 3703	Marketing Concepts and Practice	
ADV 3710	Basic Public Relations	

**Total Semester Hours 124**

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
FNLG 1550	Elementary Foreign Language	4
BUS 1500	Exploring Business	3
MATH XXXX	Approved General Education Math course	3
DNCE 1541	Modern Dance 2	2
DNCE 3791	Dance Participation	1

**Semester Hours 16**

<b>Spring</b>		
ENGL 1551	Writing 2	3
FNLG 2600	Intermediate Foreign Language	4
CMST 1545	Communication Foundations	3
Natural Science GER		3
DNCE 1542	Dance Composition	2
DNCE 3791B	Dance Participation	1

**Semester Hours 16**

<b>Year 2</b>		
<b>Fall</b>		
Natural Science + Lab		4
THTR 1563	Costume Construction and Craft	3
THTR 1560	Understanding Theater (Arts & Humanities GER)	3
DNCE 1571	Tap and Jazz 2	2
DNCE 1550	Wellness for Actors and Dancers	1
DNCE 3791C	Dance Participation	1
DNCE 2606	Creative Dance for Children	1

**Semester Hours 15**

<b>Spring</b>		
Social & Personal Awareness GER		3
Social Science GER		3
THTR 1561	Stagecraft (take THTR 1560 first)	3
DNCE 2698	Survey of Dance	3
DNCE 1573	Ballet 2	2
DNCE 3791A	Dance Participation	1

**Semester Hours 15**

<b>Year 3</b>		
<b>Fall</b>		
Social Science GER		3
DNCE 2680	Tap Dance 3	2
THTR 2668	Acting 1: Fundamentals	3
ENT 3700	Entrepreneurship New Venture Creation	3

DNCE 3770	Jazz Dance 3	2
DNCE 3791E	Dance Participation	1
DNCE 3781	Ballet 3	2

**Semester Hours 16**

<b>Spring</b>		
Social & Personal Awareness GER		3
DNCE 3730	Music for Dance	2
THTR 3761	Stage Makeup	3
THTR 3765	Lighting Design	3
DNCE 3767	Choreography for Musical Theater	2
DNCE 3791F	Dance Participation	1
MGT 3725	Fundamentals of Management	3

**Semester Hours 17**

<b>Year 4</b>		
<b>Fall</b>		
DNCE 4871	Jazz Dance 4	2
DNCE 4881	Ballet 4	2
DNCE 4885	Dance Kinesiology	3
MKTG 3740	Professional Selling	3
THTR 1590	History of Motion Pictures (GER)	3
DNCE 3791G	Dance Participation	1
DNCE 1565	Topics in Dance	1

**Semester Hours 15**

<b>Spring</b>		
DNCE 4898	Senior Project	3
Business Sequence choice		3
ENT 4800	Entrepreneurship-Business Plan Development	3
DNCE 4892	Pedagogy of Dance Technique	3
DNCE 3751	Modern Dance 3	2

**Semester Hours 14**

**Total Semester Hours 124**

Learning outcomes for the degree in dance management include:

- **Basic Management Process** – Students demonstrate an understanding of basic management principles and entrepreneurship.
- **Dance Techniques** – Students demonstrate competence in a number of dance techniques and styles, including a basic understanding of world dance forms and styles.
- **Pedagogy** – Students demonstrate competence in transferring the knowledge, skills, aesthetics, and art of dance through teaching assessment.
- **Choreography and Composition** – Students demonstrate the ability to create movement combinations leading to successful compositional studies and performance choreography.

## Bachelor of Arts in Theater Studies

The Bachelor of Arts in Theater Studies combines an array of liberal arts coursework with extensive practical training in the techniques of theater production. Students work closely with their instructors in the classroom as well as in laboratory settings. As with any liberal arts degree, the BA is primarily designed to provide students with a broad general education, but its location in a department of theater provides special opportunities to develop production/performance skills as well. This degree program is fully accredited by The National Association of Schools of Theatre (NAST).

## Important Notes

- View the *Undergraduate Catalog* online for information including course descriptions and prerequisites, major and minor requirements, academic policies, etc.
- Check the *Undergraduate Catalog* for course prerequisites; classes taken out of sequence will not count toward graduation.
- A grade of “C” or better is required in all required major and minor courses. Courses taken as “CR/NC” will not count towards the major or minor.
- Courses cannot count toward both the major and minor.
- Courses taken for the major and minor may be applied toward satisfying General Education requirements but credit hours cannot be double counted.
- Course numbers of 3700 and higher are considered upper-division courses.
- You must complete coursework totaling a minimum of 124 s.h. to graduate (at least 60 s.h. must be completed at the 2600 level or higher and 48 s.h. must be at the 3700 level or higher).
- The following courses do NOT count as hours toward graduation:

COURSE	TITLE	S.H.
MATH 1501	Elementary Algebraic Models	5
MATH 1507	Intermediate Algebra	3
ENGL 1509	Academic English for Non-native Speakers	3
ENGL 1512	English Conversation for Non-native Speakers	1
ENGL 1539	Fundamentals of College Writing	4
ENGL 1540	Introduction to College Writing	3
RSS 1510A	Advanced College Success Skills	3
RSS 1510B	Basic College Success Skills	3
RSS 1510C	STEM Advanced College Success Skills	4

- The residency rule states that the last 30 s.h. of your degree and at least 16 s.h. in your major and 21 s.h. in upper-division courses must be completed at YSU.
- Eligibility to continue receiving federal financial aid is affected by your “satisfactory academic progress.” Carefully review details on the Office of Financial Aid and Scholarship (<http://cfweb.cc.yosu.edu/finaid>) website.
- Meet with your advisor on a regular basis to ensure you are meeting requirements for graduation.

## Graduation Process

- **One Year Before Expected Graduation**
  - Request a Graduation Evaluation
  - When your evaluation is complete, make an appointment with the chairperson of your department.
- **Semester You Plan To Graduate**
  - Apply for graduation during the *first three weeks of the semester* you plan to graduate (you must have a graduation evaluation completed in advance).

**Grade of “C” or better is required for all major and minor courses. Courses cannot be taken “CR/NC”.**

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		

Arts and Humanities (6 SH total that are counted in the Major Requirements)

THTR 1590 or THTR 2690 and THTR 1512		
Natural Science (two plus lab)		7
Social Science		6
Social and Personal Awareness		6
FNLG 1550	Elementary Foreign Language	4
FNLG 2600	Intermediate Foreign Language	4
CCAC 1500	College Success	3

### Major Requirements

Theater Participation 1 (THTR 2600A, THTR 2600B, THTR 2600C)		3
THTR 1512	Survey of Musical Theater	3
THTR 1559	Play Production	3
THTR 1590	History of Motion Pictures	3
or THTR 2690	The Art of Motion Pictures	
THTR 2661	Stage Management	1
Theater Participation 2 (THTR 3700A, THTR 3700B, THTR 3700C, THTR 3700D)		4
THTR 3768	Script Analysis	3
THTR 4891	Theater History Before 1700	3
THTR 4860	Theater History after 1700	3
THTR 4898	Senior Project	3

### General Studies

THTR 1561	Stagecraft	3
THTR 2668	Acting 1: Fundamentals	3
THTR 3701	Professional Preparation	2
THTR 4893	Independent Study in Theater	3
or THTR 4895	Arts in Education Internship: Theater	

**Electives: Select 24 s.h. of Theater electives or double major (at least 12 s.h. upper division).**

CHOOSE BETWEEN THE ACTING/DIRECTING TRACK or DESIGN/TECH TRACK		
<b>Minor Electives</b>		18
<b>Total Semester Hours</b>		<b>124</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
CCAC 1500	College Success	3
THTR 1512	Survey of Musical Theater	3
THTR 1559	Play Production	3
THTR 2668	Acting 1: Fundamentals	3
THTR 2600A	Theatre Participation 1	1
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
CMST 1545	Communication Foundations	3
THTR 1561	Stagecraft	3
MATH XXXX	Approved General Education Math course	3
THTR 2600B	Theater Participation 1	1
ENGL 1551	Writing 2	3
THTR 3768	Script Analysis	3
<b>Semester Hours</b>		<b>16</b>

<b>Year 2</b>		
<b>Fall</b>		
Social and Personal Awareness		3
FNLG 1550	Elementary Foreign Language	4
THTR 2600C	Theater Participation 1	1
Social Science		3

Minor/Double Major		3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
THTR 1590 or THTR 2690	History of Motion Pictures or The Art of Motion Pictures	3
THTR 3700A	Theater Participation 2	1
FNLG 2600	Intermediate Foreign Language	4
THTR 2661	Stage Management	1
Natural Science + Lab		4
Elective/Double Major		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
THTR 3701	Professional Preparation	2
THTR 4891	Theater History Before 1700	3
Minor/Double Major		3
THTR 3700B	Theater Participation	1
Minor/Double Major		3
Elective/Double Major		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
THTR 4860	Theater History after 1700	3
THTR 4893 or THTR 4895	Independent Study in Theater or Arts in Education Internship: Theater	3
Natural Science		3
THTR 3700C	Theater Participation 2	1
Minor/Double Major		3
Elective/Double Major		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
Minor/Double Major		3
THTR 3700D	Theater Participation 2	1
Social and Personal Awareness		3
Upper Division Elective/Double Major		3
Upper Division Elective/Double Major		3
Elective/Double Major		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
THTR 4898	Senior Project	3
Minor/Double Major		3
Social Science		3
Upper Division Elective/Double Major		3
Upper Division Elective/Double Major		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>124</b>

## Learning Outcomes

1. Public Performances – Students will competently create and present public theater events, either as performers, designers or technicians.
2. Knowledge of History and Cultural Dimensions: Students will explain the history and cultural influences of and upon the institution of theater throughout the ages.
3. Informed Assessments of Quality: Students will critically evaluate works of theater.
4. Critical Thinking: Students will define a desired goal in creating a work of theater, and devise a plan to achieve that goal.

## Bachelor of Arts in Theater Studies, Film/Video Track

The Bachelor of Arts in Theater Studies, Film/Video Studies combines an array of liberal arts coursework with extensive practical training in the techniques of theater, film, and video production. Students work closely with their instructors in the classroom as well as in laboratory settings. As with any liberal arts degree, the BA is primarily designed to provide students with a broad general education and offers specialty courses within the Theater, Telecommunications, and English departments. Students within this degree program select one of three areas: Production, Visual Media and Design, or Critical Studies.

## Important Notes

- View the *Undergraduate Catalog* online for information including course descriptions and prerequisites, major and minor requirements, academic policies, etc.
- Check the *Undergraduate Catalog* for course prerequisites; classes taken out of sequence will not count toward graduation.
- A grade of “C” or better is required in all required major and minor courses. Courses taken as “CR/NC” will not count towards the major or minor.
- Courses cannot count toward both the major and minor.
- Courses taken for the major and minor may be applied toward satisfying General Education requirements but credit hours cannot be double counted.
- Course numbers of 3700 and higher are considered upper-division courses.
- You must complete coursework totaling a minimum of 124 s.h. to graduate (at least 60 s.h. must be completed at the 2600 level or higher and 48 s.h. must be at the 3700 level or higher).

• The following courses do NOT count as hours toward graduation:

COURSE	TITLE	S.H.
MATH 1501	Elementary Algebraic Models	5
MATH 1507	Intermediate Algebra	3
ENGL 1509	Academic English for Non-native Speakers	3
ENGL 1512	English Conversation for Non-native Speakers	1
ENGL 1539	Fundamentals of College Writing	4
ENGL 1540	Introduction to College Writing	3
RSS 1510A	Advanced College Success Skills	3
RSS 1510B	Basic College Success Skills	3
RSS 1510C	STEM Advanced College Success Skills	4

- The residency rule states that the last 30 s.h. of your degree and at least 16 s.h. in your major and 21 s.h. in upper-division courses must be completed at YSU.
- Eligibility to continue receiving federal financial aid is affected by your “satisfactory academic progress.” Carefully review details on the Office of Financial Aid and Scholarship (<http://cfweb.cc.yzu.edu/finaid>) website.
- Meet with your advisor on a regular basis to ensure you are meeting requirements for graduation.

### Graduation Process

- **One Year Before Expected Graduation**
  - Request a Graduation Evaluation
  - When your evaluation is complete, make an appointment with the chairperson of your department.
- **Semester You Plan To Graduate**

- Apply for graduation during the **first three weeks of the semester** you plan to graduate (you must have a graduation evaluation completed in advance).

COURSE	TITLE	S.H.
General Education Requirements		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Approved Gen Educ MATH Course		
Arts and Humanities		
THTR 1590	History of Motion Pictures	6
THTR 1512	Survey of Musical Theater	6
Social Science		
Social and Personal Awareness		
General Education / First Year Experience		
Natural Sciences (2 courses, one must include a lab)		
Foreign Language 1550		
Foreign Language 2660		
Grade of "C" or better is required. Courses cannot be taken "CR/NC"		
<b>Core Courses</b>		
THTR 1512	Survey of Musical Theater	6
THTR 1559	Play Production	3
THTR 1590	History of Motion Pictures	6
or THTR 2690	The Art of Motion Pictures	6
THTR 2600	Theater Participation	1
THTR 2600B	Theater Participation	1
THTR 2600C	Theater Participation	1
THTR 2661	Stage Management	1
DNCE 2698	Survey of Dance	3
THTR 3700A	Theater Participation 2	1
THTR 3700B	Theater Participation 2	1
THTR 3700C	Theater Participation 2	1
THTR 3700D	Theater Participation 2	1
THTR 3768	Script Analysis	3
THTR 4891	Theater History Before 1700	3
THTR 4860	Theater History after 1700	3
THTR 4898	Senior Project	3
<b>Interdisciplinary Film/Video Studies</b>		
THTR 1561	Stagecraft	3
CMST 2650	Rhetoric of Film	3
ENGL 2665	Introduction to Film Study	3
THTR 3701	Professional Preparation	2
ENGL 3748	Screenwriting	3
THTR 3762	Directing 1	3
or THTR 4870	Acting 4: Acting on Camera	3
THTR 3763	Scene Design	3
or THTR 3765	Lighting Design	3
or THTR 3769	Costume Design	3
ENGL 3765	Film Genres	3
THTR 4893	Independent Study in Theater	3
37/48XX Film/Video Studies Elective		
<b>Choose one Specialization (18 hours):</b>		
<b>Production (20 hours)</b>		
TCOM 1580	Introduction to Telecommunication Studies	3
TCOM 1581	Telecommunication Technologies	3
TCOM 2682	Scriptwriting for Electronic Media	3

TCOM 2683	Media Operations and Performance	3
TCOM 3781	Audio Production	3
TCOM 3782	Video Production 1	3
TCOM 4850	Advanced Audio/Video Production and Editing	3
<b>Visual Media and Design</b>		
ART 1501	Fundamentals of 2D Design	3
ART 2691	Introduction to Digital Media	3
ART 3792	Video Art	3
ART 3796	Ideation	3
ART 4891	Multimedia Design	3
Visual M&D Upper Division Elective		
<b>Critical Studies</b>		
THTR 1590	History of Motion Pictures	6
or THTR 2690	The Art of Motion Pictures	6
ENGL 3700	Literary Study	3
ENGL 3765	Film Genres	3
ENGL 4865	Selected Topics in Film	3
Critical Studies Upper Division Elective		
Critical Studies Upper Division Elective		
<b>University Electives</b>		
Any Upper Division University Course		
		3
<b>Total Semester Hours</b>		<b>124</b>
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
TCOM 1580	Introduction to Telecommunication Studies	3
or ART 1501	or Fundamentals of 2D Design	3
or THTR 1590	or History of Motion Pictures	3
CCAC 1500	College Success	3
THTR 1559	Play Production	3
THTR 2600	Theater Participation	1
ENGL 2665	Introduction to Film Study	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
THTR 1590	History of Motion Pictures	3
or THTR 2690	or The Art of Motion Pictures	3
THTR 1561	Stagecraft	3
THTR 2600B	Theater Participation	1
TCOM 1581	Telecommunication Technologies	3
or ART 2691	or Introduction to Digital Media	3
or THTR 2690	or The Art of Motion Pictures	3
or THTR 1590	or History of Motion Pictures	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
CMST 2650	Rhetoric of Film	3
THTR 2600C	Theater Participation	1
Approved MATH Course		
TCOM 2682	Scriptwriting for Electronic Media	3
or ART 3792	or Video Art	3
or ENGL 3700	or Literary Study	3
Science with Lab		
THTR 1512	Survey of Musical Theater	3
<b>Semester Hours</b>		<b>17</b>

**Spring**

DNCE 2698	Survey of Dance	3
THTR 3700A	Theater Participation 2	1
Social and Personal Awareness Gen Ed		3
Social Science Gen Ed		3
Science Gen Ed		3
THTR 3768	Script Analysis	3
THTR 2661	Stage Management	1
<b>Semester Hours</b>		<b>17</b>

**Year 3**

**Fall**

Foreign Language 1550		4
THTR 3700B	Theater Participation 2	1
Specialization Course: TCOM 2683 or ART 3796 or Critical Studies Upper Division Elective		3
ENGL 3765	Film Genres	3
Social and Personal Awareness Gen Ed		3
THTR 4891	Theater History Before 1700	3
<b>Semester Hours</b>		<b>17</b>

**Spring**

Foreign Language 2600		4
THTR 3700C	Theater Participation 2	1
Theater Design Course		3
ENGL 3748	Screenwriting	3
THTR 4860	Theater History after 1700	3
THTR 3701	Professional Preparation	2
<b>Semester Hours</b>		<b>16</b>

**Year 4**

**Fall**

THTR 3700D	Theater Participation 2	1
Social Science Gen Ed		3
THTR 3762	Directing 1	3
or THTR 4870 or Acting 4: Acting on Camera		
Specialization Course: TCOM 3781 or ART 4891 or ENGL 3765 (second time)		3
THTR 4893	Independent Study in Theater	3
<b>Semester Hours</b>		<b>13</b>

**Spring**

THTR 4898	Senior Project	3
Upper Division Elective		
Specialization Course: TCOM 4850 or ART Upper Division Elective or ENGL 4865		3
37XX/48XX Film Elective		3
Specialization Course: TCOM 3782 or Critical Studies Upper Division Elective		3
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>124</b>

# Bachelor of Fine Arts in Musical Theater

The Bachelor of Fine Arts in Musical Theater is designed to provide intensive training preparing students for professional careers as actor/singers. It is fully accredited by the National Association of Schools of Theatre (NAST), and admission to this program is available by audition/interview only. This degree may be completed in eight semesters if students average 16 hours per

semester. Retention in the program is contingent upon an annual progress review presented by each student.

## Important Notes

- View the *Undergraduate Catalog* for information including course descriptions and prerequisites, major and minor requirements, academic policies, etc.
- Check the *Undergraduate Catalog* for course prerequisites; classes taken out of sequence will not count toward graduation.
- A grade of "C" or better is required in all required major and minor courses. Courses taken as "CR/NC" will not count towards the major or minor.
- Courses cannot count toward both the major and minor.
- Courses taken for the major and minor may be applied toward satisfying General Education requirements, but credit hours cannot be double counted.
- Course numbers of 3700 and higher are considered upper-division courses.
- You must complete coursework totaling a minimum of 124 s.h. to graduate (at least 60 s.h. must be completed at the 2600 level or higher and 48 s.h. must be at the 3700 level or higher).
- The following courses do NOT count as hours toward graduation:

COURSE	TITLE	S.H.
MATH 1501	Elementary Algebraic Models	5
MATH 1507	Intermediate Algebra	3
ENGL 1509	Academic English for Non-native Speakers	3
ENGL 1512	English Conversation for Non-native Speakers	1
ENGL 1539	Fundamentals of College Writing	4
ENGL 1540	Introduction to College Writing	3
RSS 1510A	Advanced College Success Skills	3
RSS 1510B	Basic College Success Skills	3
RSS 1510C	STEM Advanced College Success Skills	4

- The residency rule states that the last 30 s.h. of your degree and at least 16 s.h. in your major and 21 s.h. in upper-division courses must be completed at YSU.
- Eligibility to continue receiving federal financial aid is affected by your "satisfactory academic progress." Carefully review details on the Office of Financial Aid and Scholarship (<http://cfweb.cc.ysu.edu/finaid>) website.
- Meet with your advisor on a regular basis to ensure you are meeting requirements for graduation.

## Graduation Process

- **One Year Before Expected Graduation**
  - Request a Graduation Evaluation
  - When your evaluation is complete, make an appointment with the chairperson of your department.
- **Semester You Plan To Graduate**
  - Apply for graduation during the **first three weeks of the semester** you plan to graduate (you must have a graduation evaluation completed in advance).

Grade of "C" or better is required. Courses cannot be taken "CR/NC".

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		

Arts and Humanities	6
Natural Sciences (two plus lab)	7
Social Science	6
Social and Personal Awareness	6
CCAC 1500 College Success	3
<b>Major Requirements</b>	
Survey of Musical Theater (THTR 1512 is taken as an Arts & Humanities Gen Ed Requirement)	
THTR 1559 Play Production	3
THTR 1561 Stagecraft	3
<b>Theater Participation 1 (THTR 2600A, THTR 2600B, THTR 2600C)</b>	<b>3</b>
THTR 2668 Acting 1: Fundamentals	3
THTR 2667 Acting 2: Voice for the Actor	3
<b>Theater Participation 2 (THTR 3700A, THTR 3700B, THTR 3700C, THTR 3700D)</b>	<b>4</b>
THTR 3701 Professional Preparation	2
THTR 3761 Stage Makeup	3
THTR 3762 Directing 1	3
THTR 3764 History of Stage Costume	3
THTR 3766 Stage Combat	3
THTR 3791 Rehearsal and Performance	3
THTR 4860 Theater History after 1700	3
THTR 4863 Acting 3: Styles	3
THTR 4891 Theater History Before 1700	3
THTR 4898 Senior Project	3
<b>Select two of the following:</b>	<b>6</b>
THTR 1563 Costume Construction and Craft	
THTR 3768 Script Analysis	
THTR 4870 Acting 4: Acting on Camera	
THTR 4893 Independent Study in Theater	
THTR 4899 Topics in Theater	
VOIC 1501T Voice Musical Theater 1	2
VOIC 1502T Voice Musical Theater 2	2
VOIC 2601T Advanced Musical Theater 1	2
VOIC 2602T Advanced Musical Theater 2	2
VOIC 3701 Voice	2
VOIC 3702 Voice	2
VOIC 4801 Voice	2
VOIC 4802 Voice	2
MUAC 1581 Class Piano 1	1
MUAC 1582 Class Piano 2	1
MUTC 1531 Music Theory 1 & MUTC 1541 and Aural Theory 1	4
<b>Must take THTR 2664 Musical Theater Lab Twice</b>	<b>2</b>
<b>Select five s.h. from the following:</b>	<b>5</b>
DNCE 1540 Modern Dance 1	
DNCE 1541 Modern Dance 2	
DNCE 1550 Wellness for Actors and Dancers	
DNCE 1570 Tap and Jazz 1	
DNCE 1571 Tap and Jazz 2	
DNCE 1572 Ballet 1	
DNCE 3767 Choreography for Musical Theater	
KSS 1514 Fencing 1	
KSS 1515 Fencing 2	
<b>Total Semester Hours</b>	<b>123</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
VOIC 1501T	Voice Musical Theater 1	2
	Dance Level 1 choice	1
THTR 1561	Stagecraft	3
THTR 2668	Acting 1: Fundamentals	3
ENGL 1550	Writing 1	3
THTR 1560	Understanding Theater	3
THTR 2600	Theater Participation	1
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
VOIC 1502T	Voice Musical Theater 2	2
THTR 1512	Survey of Musical Theater	3
THTR 1559	Play Production	3
THTR 2667	Acting 2: Voice for the Actor	3
ENGL 1551	Writing 2	3
THTR 2600B	Theater Participation	1
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
VOIC 2601T	Advanced Musical Theater 1	2
MUAC 1581	Class Piano 1	1
MATH 2623	Quantitative Reasoning	3
	Social Science GER	3
THTR 2600C	Theater Participation	1
CMST 1545	Communication Foundations	3
	Natural Science GER	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
VOIC 2602T	Advanced Musical Theater 2	2
MUAC 1582	Class Piano 2	1
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
THTR 3700	Theater Participation 2	1
THTR 3761	Stage Makeup	3
THTR 3766	Stage Combat	3
THTR 2664	Musical Theater Lab	1
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
VOIC 3701	Voice	2
THTR 3700B	Theater Participation 2	1
THTR 3762	Directing 1	3
THTR 4891	Theater History Before 1700	3
	Upper Division Social & Personal Awareness GER	3
	Social Science GER	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
VOIC 3702	Voice	2
THTR 3700C	Theater Participation 2	1
DNCE 3767	Choreography for Musical Theater	2
THTR 4860	Theater History after 1700	3
THTR 3764	History of Stage Costume	3
THTR 2664	Musical Theater Lab	1
THTR 4863	Acting 3: Styles	3

THTR 3701	Professional Preparation	2
<b>Semester Hours</b>		<b>17</b>
<b>Year 4</b>		
<b>Fall</b>		
VOIC 4801	Voice	2
THTR 3700D	Theater Participation 2	1
Upper Division Elective		3
Natural Science + Lab		4
THTR 3791	Rehearsal and Performance	3
Dance choice Level 2		2
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
VOIC 4802	Voice	2
THTR 4898	Senior Project	3
Upper Division THTR Elective		3
Social & Personal Awareness GER		3
General Education Elective		3
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>123</b>

## Learning Outcomes

1. Public Performances: Students will competently create and present public theater events, either as performers, designers or technicians.
2. Knowledge of History and Cultural Dimensions: Students will explain the history and cultural influences of and upon the institution of theater throughout the ages.
3. Informed Assessments of Quality: Students will critically evaluate works of theater.
4. Critical Thinking: Students will define a desired goal in creating a work of theater, and devise a plan to achieve that goal.
5. Musical Knowledge: Students will understand basic music theory, and the keyboard.
6. Vocal Competence: Students will competently sing and act a musical selection in the musical theater style.

## Bachelor of Fine Arts in Theater

The Bachelor of Fine Arts in Theater is designed to provide intensive training, preparing students for careers in the professional or academic theater. It is fully accredited by the National Association of Schools of Theatre (NAST), and admission to this program is available by audition/interview only. Students admitted to this BFA program will combine a basic foundation of general studies with an extensive selection of performance-oriented coursework (acting, directing, design, and dance) and participation in the co-curricular production activities of the department. This degree may be earned in eight semesters if students average 16 hours per semester. Retention in the program is contingent upon an annual progress review presented by each student.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Natural Sciences		6
Social Sciences		6
Social and Personal Awareness		6

General Education Elective / First-Year Experience		3
<b>Major Requirements</b>		
THTR 1559	Play Production	3
THTR 1561	Stagecraft	3
THTR 2668	Acting 1: Fundamentals	3
Theater Participation 2600 (taken 3 times)		3
THTR 3761	Stage Makeup	3
THTR 3762	Directing 1	3
THTR 2667	Acting 2: Voice for the Actor	3
THTR 3766	Stage Combat	3
Theater Participation 2 (taken 4 times)		4
Select two of the following:		6
THTR 3763	Scene Design	
THTR 3765	Lighting Design	
THTR 3769	Costume Design	
THTR 4891	Theater History Before 1700	3
THTR 3791 Rehearsal and Performance or THTR Projects in Production (taken 2 times)		6
THTR 4860	Theater History after 1700	3
THTR 3764	History of Stage Costume	3
THTR 3768	Script Analysis	3
THTR 4898	Senior Project	3
Select four of the following:		12
THTR 1563	Costume Construction and Craft	
THTR 4863	Acting 3: Styles	
THTR 4870	Acting 4: Acting on Camera	
THTR 4899	Topics in Theater	
THTR 5864	Directing 2	
Select 3 s.h. in movement from the following:		3
DNCE 1570	Tap and Jazz 1	
DNCE 1572	Ballet 1	
DNCE 1540	Modern Dance 1	
DNCE 1571	Tap and Jazz 2	
DNCE 1541	Modern Dance 2	
KSS 1514	Fencing 1	
KSS 1558	Physical Fitness for Life	
KSS 1557	Weight Training	

<b>Electives</b>		
Select 12 s.h. of theater or dance electives emphasizing either performance or design/technology.		12
<b>Total Semester Hours</b>		<b>121</b>

## Minor in Dance

To complete a minor in dance, a student must complete a minimum of 23 hours of coursework as described below:

COURSE	TITLE	S.H.
<b>Required Courses</b>		
One-third of the dance minor (7 semester hours) must be 3000 level or above.		
DNCE 1540: Modern Dance 1 <sup>1</sup>		
DNCE 1541	Modern Dance 2	2
DNCE 1542	Dance Composition	2
DNCE 1550	Wellness for Actors and Dancers	1
DNCE 1570	Tap and Jazz 1 <sup>1</sup>	1
DNCE 1571	Tap and Jazz 2	2



DNCE 1572	Ballet 1 <sup>1</sup>	1
DNCE 3791	taken 3 times	3
DNCE 1573	Ballet 2	2
DNCE 2698	Survey of Dance	3
DNCE 4892	Pedagogy of Dance Technique	2-3
or DNCE 3767	Choreography for Musical Theater	
Select a minimum of 3 or 4 additional s.h. from the following, depending on whether one takes DNCE 4892 or DNCE 3767:		3
DNCE 2606	Creative Dance for Children	
DNCE 2680	Tap Dance 3	
DNCE 3751	Modern Dance 3	
DNCE 3770	Jazz Dance 3	
DNCE 3781	Ballet 3	
DNCE 4871	Jazz Dance 4	
DNCE 4881	Ballet 4	
<b>Total Semester Hours</b>		<b>23</b>

<sup>1</sup> All dance minors are required to demonstrate proficiency at level 2 in modern, tap and jazz, and ballet technique. Level-one technique classes may be waived for students with more advanced technical proficiency.

## Minor in Theater

To complete a minor in Theater Studies, a student must take a minimum of 18 hours as described below:

COURSE	TITLE	S.H.
THTR 1560	Understanding Theater	3
THTR 1561	Stagecraft	3
THTR 2668	Acting 1: Fundamentals	3
THTR 3768	Script Analysis	3
<b>Choose one of the following:</b>		3
THTR 4891 or THTR 4860		
<b>Choose one Upper Division THTR Elective</b>		3
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Film Studies

COURSE	TITLE	S.H.
<b>Required Courses</b>		
THTR 1590	History of Motion Pictures	3
THTR 2690	The Art of Motion Pictures	3
CMST 2650	Rhetoric of Film	3
ENGL 2665	Introduction to Film Study	3
THTR 3768	Script Analysis	3
ENGL 3748	Screenwriting	3
or ENGL 3765	Film Genres	
<b>Total Semester Hours</b>		<b>18</b>

## The College of Liberal Arts and Social Sciences

*Kristine Blair, Dean*

The College grants three bachelor's degrees:

- Bachelor of Arts (BA)
- Bachelor of General Studies (BGS)

- Bachelor of Science in Applied Science (BSAS)

Additionally an Associate of Arts (AA) degree is offered.

## Academic Departments

- Department of Economics
- Department of English
- Department of Foreign Languages and Literatures
- Department of Geography
- Department of History
- Department of Philosophy and Religious Studies
- Department of Politics and International Relations and Rigelhaupt Pre-Law Center
- Department of Psychology
- Department of Sociology, Anthropology, and Gerontology

## Academic Programs

- Africana Studies
- American Studies
- Global Education
- Islamic Studies
- Judaic and Holocaust Studies
- Peace and Conflict Studies
- Women's and Gender Studies
- Working-Class Studies

## Mission

The mission of Youngstown State University's College of Liberal Arts and Social Sciences (CLASS) embraces interdependent aspects of teaching, scholarship, and service. The College seeks to meet the educational needs of students enrolled in its associate, bachelor's, and master's degree programs and to provide a core of liberal arts coursework for all YSU students.

Youngstown State University's College of Liberal Arts and Social Sciences, through its general education and major requirements, seeks to prepare students for productive and rewarding lives by developing critical and creative thinking, sound judgment, and effective communication skills. The College strives to impart knowledge of the liberal arts and social sciences and to produce educated citizens who value learning. It helps students develop regional, national and global perspectives and a better understanding of the individual and society in the past and present. The College prepares students for careers, or for further graduate or professional study, by immersing them in liberal arts and social science disciplines. College faculty members use their expertise in service to the University, their professions, and the community to serve as advisors, mentors, and career counselors to students. In addition, they contribute to knowledge within their disciplines by presenting conference papers and publishing books and articles.

Finally, the College values diversity, exposing students to experiences and coursework that affirm the richness of ethnic, cultural, gender, and racial differences.

## Programs For the BA Degree

- Anthropology
- Economics
- English
- Geography
- Gerontology
- History
- Italian
- Philosophy

- Political Science
- Professional and Technical Writing
- Psychology
- Religious Studies
- Sociology
- Spanish

## Programs For the BGS Degree

- General Studies

## Programs For the BSAS Degree

- Long-Term Care Administration

## ICP Program

Students whose needs are not met by existing conventional programs may wish to investigate and apply for the **Individualized Curriculum Program** (see Special Academic Programs).

## Minors

Minors are available in all program areas with many programs offering multiple and/or interdisciplinary minors. A minimum of eighteen (18) semester hours are required for the minor, and 1/3 of the hours must be upper division.

## Certificates

Certificate programs are offered in historic preservation, applied gerontology, geospatial science and technology, and comparative international studies.

## Prospective Teachers

Prospective elementary or secondary teachers may work toward a BA or BS in Education degree.

Prospective high school teachers major in the College of Liberal Arts and Social Sciences department of their principal field and are advised by that department, except for the requirements for teacher certification, for which advisement is by the College of Education.

For the Institutional Report on the Quality of Teacher Preparation, Title II, Higher Education Act, please see *Title II, Teacher Education* in the Undergraduate Catalog.

## Degree Requirements

Requirements for completion of a baccalaureate degree (BA, BGS) within the College of Liberal Arts and Social Sciences include all University requirements detailed in the **Academic Policies and Procedures** section of the Undergraduate Catalog (i.e., requirements regarding total General Education Requirements, university credits, course levels, majors, and minors, grade point average, residency and degree applications). Specific requirements for each major in the College of Liberal Arts and Social Sciences are listed by department.

## College Foreign Language Requirement for Bachelor's Degree

All candidates for the BA degree are required to demonstrate proficiency at the 2600 level (two semesters) in any foreign language. Students with a foreign language background may desire to take the foreign language placement test in order to place into the second semester (2600) or beyond (which will satisfy the foreign language requirement). It may be possible to satisfy the foreign language requirement through appropriate college transfer coursework and credit by exam.

## Courses of Instruction and Curricula

In the following department sections, the course requirements for the various majors are given, but other requirements are not repeated from the list above.

Course descriptions can be found in a separate section of the Undergraduate Catalog.

For more information, visit the **The College of Liberal Arts and Social Sciences** (<http://www.yzu.edu/academics/college-liberal-arts-social-sciences>).

## Minor in Africana Studies

### Program Director

Tiffany Anderson

239 DeBartolo Hall

(330) 941-3419

tmanderson03@ysu.edu

The University offers a minor in Africana Studies with the advice and approval of the chair of the department in which the student is majoring. The minor requires completion of 18 hours. For information about the Africana Studies minor, contact the director.

COURSE	TITLE	S.H.
AFST 2600	Introduction to Africana Studies 1	3
AFST 2601	Introduction to Africana Studies 2	3
<b>Select two courses from the following (6 s.h.):</b>		<b>6</b>
ENGL 2620	African Literature	
HIST 3750	History of Modern Africa	
HIST 3751	History of South Africa	
REL 3710	African and Neo-African Religion	
<b>Select two courses from the following (6 s.h.):</b>		<b>6</b>
ENGL 4871	The Black Experience in American Literature	
HIST 3730	The Black Experience in American History	
HIST 4801	Select Problems in American History	
REL 3708	African-American Religion	
REL 3750	Religion and Race	
<b>Total Semester Hours</b>		<b>18</b>

### AFST 2600 Introduction to Africana Studies 1 3 s.h.

The social-historical and intellectual heritage of black people in Africa and the Americas.

**Gen Ed:** Domestic Diversity, Social Science, Social and Personal Awareness.

### AFST 2601 Introduction to Africana Studies 2 3 s.h.

The cultural and intellectual heritage of black people in Africa and the Americas as reflected in literature, philosophy, and art.

**Gen Ed:** Arts and Humanities, Domestic Diversity, Social and Personal Awareness.

### AFST 3700 Africana Studies Colloquium 1 3 s.h.

A social studies seminar focusing on the historic, economic, political, or social aspects of the experiences of people of African descent. May be repeated once with different content.

**Prereq.:** AFST 2600.

### AFST 3701 Africana Studies Colloquium 2 3 s.h.

A humanities seminar focusing on the art, music, literature and/or philosophy of people of African descent. May be repeated once with different content.

**Prereq.:** AFST 2601.

# Minor in American Studies

## Program Director

Dolores V. Sisco  
245 DeBartolo Hall  
(330) 941-3422  
dvsisco@ysu.edu

American Studies offers students the opportunity to examine the central themes and issues in American life using material and approaches from a variety of disciplines. Students gain awareness of the broad outlines of American history and culture as well as an understanding of important theories of culture and ways of studying American life.

The University offers a minor in American Studies with the advice and approval of the chair of the department in which the student is majoring. The minor requires completion of 18 hours. For information about the American Studies minor, contact the director.

In addition to offering a minor in American Studies, YSU offers a Master of Arts in American Studies. For more information, consult the Graduate Catalog.

COURSE	TITLE	S.H.
AMER 2601	American Identity	3
AMER 3701	Approaches to American Studies	3
<b>Four additional upper division courses, selected from the American Studies list of approved courses, from at least two departments other than the department in which the students' major is housed, and subject to consultation with an American Studies advisor.</b>		12
<b>Total Semester Hours</b>		<b>18</b>

### AMER 2601 American Identity 3 s.h.

Study of American Identity through historical, literary, artistic, material, media and other sources. Emphasis on American pluralism and cultural debates over the meaning of American identity.

**Gen Ed:** Domestic Diversity, Social Science, Social and Personal Awareness.

### AMER 2601H Honors American Identity 3 s.h.

Study of American Identity through historical, literary, artistic, material, media and other sources. Emphasis on American pluralism and cultural debates over the meaning of.

**Gen Ed:** Domestic Diversity, Social Science, Social and Personal Awareness.

### AMER 2605 Turning Points in United States History 1 3 s.h.

Key episodes in the social, economic, political, and cultural developments of the United States to 1877, exploring how diverse peoples shaped the growing nation.

**Cross-listed:** HIST 2605.

**Gen Ed:** Social Science.

### AMER 2606 Turning Points in United States History 2 3 s.h.

Key episodes in the social, economic, political, and cultural developments of the United States since 1877, exploring how diverse peoples shaped the growing nation.

**Cross-listed:** HIST 2606.

**Gen Ed:** Domestic Diversity, Social Science, Social and Personal Awareness.

### AMER 2610 Work and Class in American Culture 3 s.h.

Interdisciplinary thematic exploration of work and class in American culture with emphasis on the Mahoning Valley. Includes the impact of social movements, technological developments, and new ideas and knowledge.

Examines the relationship of class to such social categories as race, gender, sexuality, ethnicity, and place.

**Prereq.:** Placement in ENGL 1550.

**Gen Ed:** Social Science.

### AMER 3700 Minority Groups 3 s.h.

Survey of the origins and characteristics of ethnic and racial minority groups, with emphasis on the significance of membership in such a group for in-group, out-group, and community solidarity.

**Prereq.:** SOC 1500.

**Cross-listed:** SOC 3700.

### AMER 3701 Approaches to American Studies 3 s.h.

Survey of central issues and themes in American cultural studies, with emphasis on interdisciplinary approaches and cultural diversity. May focus on a theme chosen by the instructor, such as nature and culture, work, or class in America. May be repeated once with a different topic.

### AMER 3705 Cultural Anthropology 3 s.h.

A cross-cultural comparison of the cultural norms that regulate society, emphasizing the functional prerequisites for the existence of society and individual demands on society.

**Prereq.:** ANTH 2602.

**Cross-listed:** ANTH 3705.

### AMER 3720 Applied Sociology 3 s.h.

Uses of sociology in practical affairs, providing theory and data for public policy, institutional reform, social action programs, and social inventions. Contributions to architectural design, industrial engineering, community planning, and innovative legislation.

**Prereq.:** SOC 1500.

**Cross-listed:** SOC 3720.

### AMER 3770 American Literature in Historical Perspective 3 s.h.

Poetry, prose, drama, and other forms of literary expression examined within the context of a specific aspect of American social, intellectual, and cultural history. May be repeated once with different topic.

**Prereq.:** ENGL 3701 or ENGL 3702.

**Cross-listed:** ENGL 3770.

### AMER 4801 American Studies Research Seminar 3 s.h.

Capstone seminar. Focuses on development and implementation of research proposal and current American studies research related to topics chosen by students for their senior projects.

**Prereq.:** AMER 3701 and approval of Program Coordinator.

### AMER 4810 Independent Project in American Culture 1-3 s.h.

Work with faculty advisor on senior projects. A total of 3 s.h. is required for completion of the major. May be repeated with permission of coordinator.

**Prereq.:** AMER 4801 and approval of Program Coordinator.

**Gen Ed:** Capstone.

### AMER 4815 American Material Culture 3 s.h.

A discussion and analysis of the use and importance of material artifacts as texts for the recovery of the American past. Emphasis on sources not traditionally utilized by historians. Examples include the contextual analysis of children's books, foodways, and sacred spaces.

**Prereq.:** HIST 2605 and HIST 2606, or AMER 2601 and AMER 3701.

**Cross-listed:** HIST 4815.

### AMER 5845 Work in America 3 s.h.

Examines the changing characteristics, expectations, and representations of work in America. Includes the exploration of demographic, historic, economic, technological, sociological, religious, ethical, popular, and poetic perspectives on work.

**Prereq.:** junior standing.

**Cross-listed:** MGT 5845.

### AMER 5850 Class and Culture 3 s.h.

Theories of social class structure and formation, relationships between class and culture, representations of class and work, intersections of class with other aspects of cultural identity (race, gender, sexuality, place), and theories and methods of working-class studies.

**Prereq.:** graduate standing or AMER 3701.

### AMER 6900 Approaches to American Studies 3 s.h.

Introduction to American studies with emphasis on history of the field, interdisciplinary approaches, and cultural diversity.

**AMER 6910 Introduction to Working-Class Studies 3 s.h.**

Introduction to developments, approaches, and issues in new working-class studies, including intersections of class with other categories of identity, disciplinary and interdisciplinary perspectives, representations of the working class in the arts and media, and political and economic constructions of class.

**AMER 6930 Humanities in the Community 3 s.h.**

Opportunities, challenges, and strategies for developing, promoting, and implementing public humanities projects in various settings, including community development and organizing, community-based adult education, and programs in museums and other public humanities organizations.

**Prereq.:** AMER 6900.

**AMER 6970 Teaching Working-Class Studies 3 s.h.**

Interdisciplinary teaching strategies focused on incorporating attention to work, class, diversity, and local history and culture into K-12 and college courses.

**AMER 6975 Interdisciplinary Teaching 3 s.h.**

Introduction to interdisciplinarity and its application in the classroom with emphasis on integration of humanities and social sciences.

**AMER 6980 Public Humanities Internship 3 s.h.**

Supervised work-and-learning experience in American studies under the direction of an American studies core faculty member and an employee of a participating organization.

**AMER 6982 Special Topics 3 s.h.**

Specialized topics selected by the staff. May be repeated once with a different topic.

**Prereq.:** Permission of the American studies program coordinator and instructor.

**AMER 6985 Independent Study 3 s.h.**

Individual study in American studies or a related discipline under the supervision of a faculty member. May be repeated once.

**Prereq.:** Permission of the American studies program coordinator and instructor.

**AMER 6990 Independent Project 1-3 s.h.**

Completion of individual project in a community or school setting. May be repeated for a maximum of three semester hours.

**Prereq.:** Proposal and review meeting with committee.

## Associate of Arts in CLASS Associate of Arts

Welcome! The College of Liberal Arts & Social Sciences offers a general associate-level degree to students. This two-year degree encompasses general education courses, a concentration of the humanities, social sciences, or natural sciences, and elective hours.

The Associate of Arts (AA) degree allows students to: a) increase their earning potential or increase their level of responsibility within a current position; b) complete YSU's Ohio transfer module (OTM) which ensures coursework will transfer to another state institution within Ohio; c) serve as a short-term goal on their way to a baccalaureate level degree; and d) earn a degree using courses already completed.

## To inquire about earning the Associate of Arts degree, please contact an advisor in the Division of Academic Advising in the College of Liberal Arts & Social Sciences.

### Contact Information

Division of Academic Advising

DeBartolo Hall, Room 121

(330) 941-3413

Associate of Arts (AA) Requirements:

All courses completed for the Associate of Arts general education model must be Ohio Transfer Module (OTM) approved.

COURSE	TITLE	S.H.
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
MATH 1510	College Algebra (or other OTM general education math course)	4
CMST 1545	Communication Foundations	3

**Knowledge Domains: (all General Education courses must be OTM approved courses - please consult an academic advisor regarding GER coursees)**

2 Natural Sciences courses + Lab (one must include a lab)	7
2 Humanities Courses	6
2 Social Science Courses	6
GER Electives (any two additional courses from the above knowledge domains)	6

**Concentration Area: Students choose one of three concentration areas (see list below)** 21

Courses in the concentration must have grades of "C" or better

**Elective(s): Students must complete electives to total 60sh for the AA degree** min. 1

**Total Semester Hours:** 60

The last 20 semester hours and at least 16 s.h. of the concentration area must be completed at Youngstown State University.

## Concentration Areas:

Students choose one concentration area below.

### Humanities

Applicable courses include:

- literature courses in English or Foreign Language departments
- courses in philosophy and religious studies
- survey and/or appreciation courses in the Department of Art, the Department of Communication, the Department of Theater and Dance, or the Dana School of Music
- AFST 2601 Introduction to Africana Studies 2

### Social Studies

Courses must be selected from the following disciplines:

- Africana Studies (AFST 2600 Introduction to Africana Studies 1 only)
- anthropology

- economics
- human and regional geography
- history
- political science
- psychology
- sociology

## Natural Sciences

Courses must be selected from the following disciplines:

- astronomy
- biology
- chemistry
- environmental science
- geology
- physics
- physical geography
- A&S/STEM 2600 (no longer offered)

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 1510	College Algebra	4
Natural Science GER + Lab	OTM approved	4
Arts & Humanities GER	OTM approved	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
Social Science GER	OTM approved	3
Natural Science GER	OTM approved	3
Arts & Humanities GER	OTM approved	3
Concentration Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
Social Science GER	OTM approved	3
Concentration Course		3
Concentration Course		3
Concentration Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
Concentration Course		3
Concentration Course		3
Concentration Course		3
GER Elective		3
GER Elective		3
Elective hours	additional hours may be needed to total 60sh	1
<b>Semester Hours</b>		<b>16</b>
<b>Total Semester Hours</b>		<b>60</b>

## Learning Outcomes

All students will:

- (1) Demonstrate effective written communication.
- (2) Develop skills to enter the work force or build upon a liberal arts foundation to succeed in upper division coursework if pursuing a baccalaureate degree.

Social Studies concentrations:

- (3) Students will demonstrate an understanding of relationships of individuals and groups in their geographical, historical, global, societal, or cultural contexts.

Humanities concentrations:

- (4) Students will demonstrate an understanding of artistic expression in multiple forms and contexts. (GER Learning Outcome 8)
- (5) Students will demonstrate an understanding of the humanistic perspective including philosophy, ethics, critical thinking, religious inquiry, and diversity.

Natural Science concentrations:

- (6) Students will demonstrate an understanding of the natural environment and the processes that shape it. (GER Learning Outcome 13)

## Department of Economics

### Introduction

The Department of Economics offers bachelor's degrees in Economics and Business Economics. At the graduate level, we offer master's degrees in Economics and Financial Economics. At both the undergraduate and graduate levels, all students must complete a capstone project which gives them "hands on" experience in empirical research. Our new "4+1" program allows highly qualified students to take up to nine semester hours of graduate coursework that can be counted both towards a bachelor's degree and a master's degree, giving students the opportunity to complete a master's degree in Economics in one year after they have earned their baccalaureate degree.

The Department of Economics is very proud of the many alumni of our programs who have gone on to successful careers in government, the private sector, and academia. Career opportunities for economists continue to be strong, especially for students who complete a graduate degree.

Since 2009, the department's faculty have had more than 30 publications, either articles in refereed journals or chapters in books. Faculty have published in such highly-regarded journals as the *Journal of Financial Research*, *Economic Inquiry*, and *Public Choice*. Three of the department's faculty have received distinguished professor awards for scholarship.

The Economics Club, a student organization, regularly sponsors speakers who describe their careers in the field of economics. We also have an active chapter of Omicron Delta Epsilon, the national honorary society for economics students. The department stays in touch with students, alumni, and the YSU campus community through our biannual newsletter.

### Welcome from the Chair

Economic theory provides a powerful set of tools to analyze behavior and evaluate policies. Studying economics opens a wide variety of different career paths while also being fun because the questions asked are both intellectually stimulating and relevant to people's lives. If you want to discuss our programs please call the department office at (330) 941-3428 to set up an appointment. I encourage you to contact us to learn more about economics at Youngstown State University!

Tod S. Porter, Chair, Department of Economics

### Contact Information

Tod Porter, Department Chair - [tsporter@ysu.edu](mailto:tsporter@ysu.edu) - (330) 941-3431

Ebenge Usip, Graduate Coordinator - [eeusip@ysu.edu](mailto:eeusip@ysu.edu) - (330) 941-1682

Nancy O'Hara, Administrative Assistant - [neohara@ysu.edu](mailto:neohara@ysu.edu) - (330) 941-3428

For more information, visit the Department of Economics (<http://www.ysu.edu/academics/college-liberal-arts-social-sciences/economics-major>).

## Advising

All majors should meet with an advisor each semester prior to registering for their classes. Course selection is a critical part of finishing your degree in a timely manner.

Students majoring in Business Economics are advised through the Williamson College of Business Administration (visit the WCBA Advising website (<http://www.ysu.edu/academics/williamson-college-business-administration/advisement>)). To schedule an appointment, please call (330) 941-2376. Business Economics majors are also encouraged to meet once a year with the department's faculty to discuss their career goals.

Students pursuing a BA in Economics through the College of Liberal Arts and Social Sciences are advised by the Chair of the Department of Economics. Call (330) 941-3428 to set up an appointment to meet with the chair. CLASS students who need to submit repetition forms, study abroad forms, and transient forms or who need to request a graduation evaluation should contact the CLASS Division of Academic Advising at (330) 941-3413 (visit the CLASS Advising website (<http://www.ysu.edu/academics/college-liberal-arts-social-sciences/class-advisement>)).

Students pursuing the MA in Economics and the MA in Financial Economics are advised by the department's Graduate Coordinator, Ebenge Usip. He can be contacted via email at [eeusip@ysu.edu](mailto:eeusip@ysu.edu) and by phone at (330) 941-1682.

## Courses Relevant to Other Majors

Below are several different majors and the economics courses most relevant to those majors:

### Political Science

COURSE	TITLE	S.H.
ECON 3702	Public Finance	3
ECON 4855	Health Economics	3
ECON 5843	Economics of Poverty, Transfers and Discrimination	3

### Accounting and Finance

COURSE	TITLE	S.H.
ECON 3701	Money and Banking	3
ECON 3710	Intermediate Microeconomic Theory	3
ECON 3712	Intermediate Macroeconomic Theory	3
ECON 5809	Current Problems in Money, Banking, and Financial Markets	3
ECON 5811	International Trade	3
ECON 5812	International Finance	3

### Marketing

COURSE	TITLE	S.H.
ECON 3710	Intermediate Microeconomic Theory	3
ECON 3712	Intermediate Macroeconomic Theory	3
ECON 5801	Economics of Industrial Organization	3

### Management

COURSE	TITLE	S.H.
ECON 3710	Intermediate Microeconomic Theory	3
ECON 3712	Intermediate Macroeconomic Theory	3

ECON 4810	Managerial Economics	3
ECON 5801	Economics of Industrial Organization	3
ECON 5831	Labor Markets and the Economics of Unions	3

### Pre-Law

COURSE	TITLE	S.H.
ECON 3702	Public Finance	3
ECON 3710	Intermediate Microeconomic Theory	3
ECON 3712	Intermediate Macroeconomic Theory	3

### Environmental Studies

COURSE	TITLE	S.H.
ECON 3705	Environmental and Resource Economics	3
ECON 3710	Intermediate Microeconomic Theory	3
ECON 3712	Intermediate Macroeconomic Theory	3

### Chair

**Tod Porter**, Ph.D., Professor, Chair

### Professor

**Jolien A. Helsel**, Ph.D., Assistant Professor

**Ou Hu**, Ph.D., Professor

**Tomi P. Ovaska**, Ph.D., Professor

**Joseph Palardy**, Ph.D., Professor

**Dennis A. Petruska**, Ph.D., Professor

**Albert J. Sumell**, Ph.D., Professor

**Yogesh Uppal**, Ph.D., Professor

**Ebenge E. Usip**, Ph.D., Professor

**Yaqin Wang**, Ph.D., Professor

### Instructor

**Sarah E. Jenyk**, M.A., Instructor

## Majors

- BA in Economics (p. 288)
- "4+1" Bachelor's/Master's Program (p. 289)

## Minors

- Economics Minor (p. 290)
- Economics with Statistics Minor (p. 290)

### ECON 1501 Economics in Action 3 s.h.

An introduction to the United States' economic system and institutions through the examination of current economic problems. Not applicable for a major or minor in economics. Credit will not be given for 1501 if a student has already received credit for ECON 2610 or its equivalent.

**Gen Ed:** Social Science.

### ECON 1502 Panic and Prosperity, United States Economic Policy Since the Great Depression 3 s.h.

Examines the crises and successes of the American economy since 1929, and how the economic policies of different presidential administrations affected the lives of U.S. citizens. Not applicable towards a major or minor in economics.

**Gen Ed:** Social Science.

**ECON 1503 Rich and Poor: Diversity and Disparity in the United States Workplace 3 s.h.**

Examines how labor markets determine the distribution of income and the dramatic changes in the composition of the American labor force. Explores such issues as the widening gap between low and upper income groups, the characteristics of the poor, affirmative action, the glass ceiling, the mommy track, and family-friendly working environments. Not applicable towards a major or minor in economics.

**Gen Ed:** Domestic Diversity, Social Science, Social and Personal Awareness.

**ECON 1503H Honors Rich and Poor: Diversity and Disparity in the U.S. Workplace 3 s.h.**

S. Workplace. Examines how labor markets determine the distribution of income and the dramatic changes in the composition of the American labor force. Explores such issues as the widening gap between low and upper income groups, the characteristics of the poor, affirmative action, the glass ceiling, the mommy track, and family-friendly working environments. Not applicable towards a major or minor in economics.

**Gen Ed:** Domestic Diversity, Social Science, Social and Personal Awareness.

**ECON 1504 Economics of Aging 3 s.h.**

An introduction to the economic consequences of an aging population and the economic status of the aged. Topics include income adequacy in old age, retirement decisions, retirement income planning, social security income, employer-sponsored pensions, and financing health care. Not applicable toward a major or minor in economics.

**Prereq.:** ECON 1501 or GERO 1501.

**ECON 1505 Introduction to Personal Financial Literacy 3 s.h.**

An introduction to personal financial planning. Topics covered include budgeting, the use of credit, taxes, savings accounts, investment strategies, insurance, buying a home, career planning, and retirement planning. Students will gain the knowledge and resources to be better prepared for their financial future.

**ECON 2610 Principles 1: Microeconomics 3 s.h.**

Introduction to the theory of markets, including the behavior of consumers and the conduct of private and public business enterprise. Effects of monopoly and competition on private and social welfare. The role of government in promoting the economic welfare of consumers, workers, and minorities.

**Prereq.:** MATH 1501, or a level 20 or higher on the math placement exam.

**Gen Ed:** Social Science.

**ECON 2610H Honors Principles 1: Microeconomics 3 s.h.**

Introduction to the theory of markets, including the behavior of consumers and the conduct of private and public business enterprise. Effects of monopoly and competition on private and social welfare. The role of government in promoting the economic welfare of consumers, workers, and minorities.

**Prereq.:** MATH 1501, or a level 20 or higher on the math placement exam.

**Gen Ed:** Social Science.

**ECON 2630 Principles 2: Macroeconomics 3 s.h.**

Studies of growth, inflation, and unemployment at the national level and the performance of the U.S. economy in the global setting. The impacts of national economic policies on individual and social welfare. An extensive discussion and evaluation of the U.S. banking system and its effects on individuals and businesses.

**Prereq.:** ECON 2610.

**Gen Ed:** Social Science.

**ECON 2630H Honors Principles 2: Macroeconomics 3 s.h.**

Studies of growth, inflation, and unemployment at the national level and the performance of the U.S. economy in the global setting. The impacts of national economic policies on individual and social welfare. An extensive discussion and evaluation of the U.S. banking system and its effects on individuals and businesses.

**Prereq.:** ECON 2610.

**Gen Ed:** Social Science.

**ECON 2631 Introductory Macroeconomics for Education Majors 3 s.h.**

Measurement of the national economy's performance (growth, inflation, and unemployment), the banking system, the impact of government on macroeconomic performance, and international macroeconomics. Principles of personal finance, including budgeting, the use of credit, and financial planning are also discussed. Open only to education majors. Credit will not be given for both ECON 2630 and ECON 2631.

**Prereq.:** FOUN 1501 and ECON 2610.

**ECON 3701 Money and Banking 3 s.h.**

Organization and operation of commercial banking in the United States; central banking under the Federal Reserve System; basic theory. Monetary policy as a determinant of national income.

**Prereq.:** ECON 2630.

**ECON 3702 Public Finance 3 s.h.**

The development and present status of public finance; federal, state and local expenditures and taxation; theories of tax incidence, axioms of taxation, theories in justification and government spending; tax reform. Study of the techniques of fiscal policy with emphasis on its role as a determinant of the level of national income.

**Prereq.:** ECON 2610.

**ECON 3703 Behavioral Economics 3 s.h.**

Uses insights from economics and psychology to explain why normally rational people make poor choices in their lives, be it in terms of money, health, education or long-term happiness. This introductory course explores the sources of poor economic choices and examines ways to improve them.

**Prereq.:** ECON 2610 or PSYC 1560.

**ECON 3705 Environmental and Resource Economics 3 s.h.**

Application of economic theory to environmental problems, analysis of policy alternatives for pollution abatement, and the conservation of exhaustible resources. Determination of efficient management of local and national pollution levels, including air, water, and toxic substances. Possible economic consequences associated with global warming.

**Prereq.:** ECON 1501 or ECON 2610.

**ECON 3710 Intermediate Microeconomic Theory 3 s.h.**

A systematic analysis of the theory of demand and the theory of the firm: production input and output choices, and some basic concepts of linear programming. An intensive analysis of the theory of the firm: competitive pricing, monopoly pricing, pricing in imperfect competition; and the theory of rent, profits, interest and wages.

**Prereq.:** ECON 2610, and either MATH 1552, MATH 1570, or MATH 1571.

**ECON 3712 Intermediate Macroeconomic Theory 3 s.h.**

The construction of national income and production accounts and the basic determinant of income, output, and employment. Determination of the level of employment, interest, and money through the classical versus Keynesian aggregate economics.

**Prereq.:** ECON 2630 and either MATH 1552, MATH 1570, or MATH 1571.

**ECON 3720 Comparative Economic Systems 3 s.h.**

An examination of the recent world-wide trend toward free market economy, giving particular attention to basic processes such as resource allocation and product distribution. Frequent references are made to the failure of Socialism in the USSR and the new approach in Russia, Eastern Europe and China toward market economies.

**Prereq.:** ECON 1501 or ECON 2630.

**ECON 3724 Public Budgeting 3 s.h.**

Study of the politics, theories, and techniques of public budgeting. Includes the process of budget preparation, adoption and execution. Topics include debt management and capital budgets. (This course is cross-listed with POL 3724.)

**Prereq.:** POL 3720.

**ECON 3788 Statistics for Business and Economics 1 3 s.h.**

Introduction to statistical methods in data analysis and forecasting. Topics include descriptive statistics, probability, sampling and sampling distributions, and hypothesis testing. Practical application of statistical procedures is incorporated into regularly scheduled computer workshops. Credit will not be given for ECON 3788 if a student has already received credit for ECON 3790 or its equivalent.

**Prereq.:** MATH 1510.

**ECON 3789 Statistics for Business and Economics 2 3 s.h.**

This course builds on concepts introduced in ECON 3788. Specific topics include hypothesis testing, regression analysis, ANOVA and time series analysis. Practical application of statistical procedures is incorporated into regularly scheduled computer workshops. Credit will not be given for ECON 3789 if a student has already received credit for ECON 3790 or its equivalent. 3 s.h.

**Prereq.:** ECON 3788.

**ECON 3790 Statistics for Business and Economics 5 s.h.**

Introduction to statistical methods in data analysis and forecasting. Topics include descriptive statistics, probability, hypothesis testing, regression analysis, ANOVA and time series analysis. Practical application of statistical procedures is incorporated into regularly scheduled computer workshops.

**Prereq.:** MATH 1552, MATH 1570, or MATH 1571.

**ECON 4810 Managerial Economics 3 s.h.**

An application of economic analysis to business problems. Emphasis upon executive decisions for the allocation of resources.

**Prereq.:** ECON 2610.

**ECON 4855 Health Economics 3 s.h.**

Application of basic principles to the study of the health care industry. Topics include the supply and demand of medical care, the effects of private and public insurance on the health care industry, trends in health care costs, public policies to equalize access to medical care and the dilemma caused by the improvement in life-sustaining technology.

**Prereq.:** ECON 2610.

**ECON 4860 Selected Topics in Economics 3 s.h.**

Advanced study of selected topics in economic analysis and issues in economic policy. May be repeated once with different topic.

**Prereq.:** ECON 2610 and ECON 2630.

**ECON 4870 Economics Internship 3 s.h.**

The practical application of economic knowledge and statistical skills in the workplace. Students assist professionals in various kinds of industrial, financial, and public service organizations.

**Prereq.:** By permit only, minimum GPA 2.5.

**ECON 4880 Analysis of Economic Problems 3 s.h.**

The application and extension of the student's skills in economic analysis and statistical techniques to economic issues. The course covers sources of data, exploratory data techniques, matching of data and statistical tests, interpretation and presentation of the results. Students demonstrate their command of research techniques by the completion of a research paper and its oral presentation. Topics to be determined.

**Prereq.:** ECON 3710, ECON 3712, and ECON 3790.

**Gen Ed:** Capstone.

**ECON 4898 Graduate Study in Selected Economic Topics 3 s.h.**

For undergraduates taking courses in the MA in Economics program for credit towards an undergraduate degree. Credit earned cannot be later applied to a graduate degree. The student must meet the criteria for undergraduate students taking graduate coursework listed in the Graduate Bulletin. May be repeated with different graduate courses.

**Prereq.:** A minimum of 20 hours of coursework in economics at the 2600 level and above, permission of the chair, junior standing.

**ECON 4899 Individual Study in Economics 1-4 s.h.**

Individual study of a topic, area, or problem requiring in-depth reading, and a written project. May be repeated once with a different topic, area, or problem.

**Prereq.:** Junior or senior standing, by permit only.

**ECON 5801 Economics of Industrial Organization 3 s.h.**

A systematic analysis of the structure, conduct, and performance of American industry. A quantitative analysis plus a comprehensive review of theoretical models of the market, firm behavior, and performance.

**Prereq.:** ECON 2610.

**ECON 5806 History of Economic Thought 3 s.h.**

Designed to provide students with an understanding of the development of economic ideas to include: Mercantilism, Physiocrats, the English Classical School, Utilitarianism, early Social Thought, Karl Marx, the German Historical School, Institutionalists and the Keynesian School.

**Prereq.:** ECON 2630.

**ECON 5809 Current Problems in Money, Banking, and Financial Markets 3 s.h.**

The financial market system, including money and capital markets. Current problems associated with trends in theory and practice. Theories of the interest rate and monetarism.

**Prereq.:** ECON 3701 or consent of instructor.

**ECON 5811 International Trade 3 s.h.**

Theories of international trade and specialization; free trade vs. protectionism; tariff and non-tariff barriers to international trade; international balance of payments and its components; the role of multinational enterprises in contemporary trade pattern; regional economic integrations and world trade; U.S. commercial policies.

**Prereq.:** ECON 2630.

**ECON 5812 International Finance 3 s.h.**

Theories of foreign exchange and capital movements, international payments, analysis of spot and forward foreign exchange markets, foreign exchange market arbitrage, speculation, and risk hedging. The Bretton Woods agreement and the contemporary international monetary system. The rise of international organizations and multinational enterprises in the international economy.

**Prereq.:** ECON 2630.

**ECON 5822 Urban and Regional Economics 3 s.h.**

Economic analysis of the problems of urbanized areas and the causes of the growth or decline in economic activity in small-area economics. Topics include benefit-cost analysis, economic base analysis, input-output applications, and the theory of location and agglomeration.

**Prereq.:** ECON 2610.

**ECON 5824 Applied Time Series Analysis of Economic and Business Data 3 s.h.**

An in-depth analysis of time series models and their applications to problems in economics and business. Emphasis on forecasting. Extensive use of standard computer programs.

**Prereq.:** ECON 2610 and either ECON 3790 or STAT 4817.

**ECON 5831 Labor Markets and the Economics of Unions 3 s.h.**

Economic theory and analysis of labor as an input in the resource market; principles, labor problems, public policy; theories of the development of the labor movement; economic objectives of trade unions; problems in public control.

**Prereq.:** ECON 2610.

**ECON 5843 Economics of Poverty, Transfers and Discrimination 3 s.h.**

Examines the measurement and causes of poverty, trends in the distribution of income, and antipoverty programs and their effectiveness. Discussions of theories of discrimination, difficulties in measuring the impact of discrimination, and policies designed to reduce discrimination.

**Prereq.:** ECON 2610.

**ECON 5853 Applied Econometrics 3 s.h.**

The practice of econometrics with emphasis on model construction, estimation, and interpretation of results. Applications in the private and public sectors involve the use of computers and economic software.

**Prereq.:** ECON 2630 and ECON 3790.



**ECON 5856 Topics in Quantitative Economics 3 s.h.**

Application of different tools of mathematical economics, computational economics, and econometrics in conjunction with economic theory to model economic problems of firms, consumers, financial institutions, and public sectors. Specific content of the course will vary with the instructor. May be repeated once with a different topic.

**Prereq.:** ECON 3790.

# Bachelor of Arts in Economics

A student can earn either a Bachelor of Arts (BA) in Economics through the College of Liberal Arts and Social Sciences or a Bachelor of Science in Business Administration (BS in BA) in Business Economics (<http://www.yu.edu/academics/college-liberal-arts-social-sciences/economics-major>) through the Williamson College of Business Administration. Either degree may be earned in eight semesters if students average 15 hours per semester.

To earn the BA degree, the student must satisfy all the degree requirements in the College of Liberal Arts and Social Sciences and take 32 semester hours of coursework from the Department of Economics.

The economics major is designed to prepare students for careers both in the public and private sectors and for additional study in the field of economics. Economics graduates are qualified for a wide variety of positions in the financial sector and jobs in business and government. Students frequently use a major in economics as preparation for law school. Graduates choosing to pursue additional study in economics have been very successful in gaining admission to graduate and doctoral programs.

Students who have completed 78 semester hours with a grade point average above 3.3 are eligible to participate in the department's "4+1" program. Students in the program can take up to nine hours of coursework at the masters level which can count both towards their BA and an MA. Students who take nine hours can complete an MA in Economics in one year after graduating with their bachelor's degree.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		9
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		4
MATH 1552	Applied Mathematics for Management	
	or MATH 1570 Applied Calculus 1	
	or MATH 1571 Calculus 1	
Arts and Humanities		6
Natural Sciences (2 courses, 1 lab)		7
Social Science		6
Social Science requirement satisfied by ECON 2610 and ECON 2630		
Social and Personal Awareness		6
Foreign Language Requirement		8
LASS 1510	Exploring Critical Questions in LASS	3
	Foreign Language 1550	
	Foreign Language 2600	
Minor (or double major) minimum of 18 s.h.		18
<b>Major Requirements</b>		
Economics courses at the 1500 level cannot be counted towards the major.		
In addition to the required courses below, students must take 12 hours of upper-division Economics electives.		
ECON 2610	Principles 1: Microeconomics	3

ECON 2630	Principles 2: Macroeconomics	3
ECON 3710	Intermediate Microeconomic Theory	3
ECON 3712	Intermediate Macroeconomic Theory	3
ECON 3790	Statistics for Business and Economics	5
ECON 4880	Analysis of Economic Problems	3

All students must complete a 120 semester hours, 48 hours must be upper-division (courses at the 3700 level or higher)

Students intending to apply for PhD programs in economics should consider taking the following:

COURSE	TITLE	S.H.
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3720	Linear Algebra and Matrix Theory	3

**NOTE:** This schedule is intended solely to illustrate that it is possible for a "typical" student to complete the BA in Economics in four years. The coursework any individual student needs to take will differ. Specifically, the coursework required will vary depending on the mathematics courses you have already taken when you start the degree. Some students will need to take additional courses prior to taking MATH 1510 College Algebra while other students may have already taken a course in calculus and would not need to take either MATH 1510 College Algebra or MATH 1552 Applied Mathematics for Management. The coursework taken will also depend on a student's career goals. It is extremely important that you meet with an advisor to discuss your career aspirations and which courses you personally will need to take.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 1510	College Algebra	4
Natural Science and Lab (Gen Ed)		4
First-Year Experience		3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
ECON 2610	Principles 1: Microeconomics (fulfills the General Education Social Science requirement)	3
MATH 1552	Applied Mathematics for Management (Required for major, students intending to pursue graduate work should take MATH 1571)	4
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Social and Personal Awareness (Ged Ed)		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
ECON 2630	Principles 2: Macroeconomics (fulfills the General Education Social Science requirement)	3
ECON 3790	Statistics for Business and Economics (Required for major)	5
Natural Science (Gen Ed)		3
Foreign Language 1550		4
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
ECON 3710	Intermediate Microeconomic Theory (Required for major)	3
Minor (Required for minor)		3
Minor (Required for minor)		3
Foreign Language 2600		4
Arts and Humanities (Gen Ed)		3
<b>Semester Hours</b>		<b>16</b>

<b>Year 3</b>		
<b>Fall</b>		
ECON 3712	Intermediate Macroeconomic Theory (Required for major)	3
Minor (Required for minor)		3
Social and Personal Awareness (Gen Ed)		3
Arts and Humanities (Gen Ed)		3
Elective		2
<b>Semester Hours</b>		<b>14</b>

<b>Spring</b>		
ECON 37XX or higher	(Required for major)	3
ECON 37XX or higher	(Required for major)	3
Minor 37XX or higher	(Required for minor)	3
Elective		3
Elective 37XX or higher		3
<b>Semester Hours</b>		<b>15</b>

<b>Year 4</b>		
<b>Fall</b>		
ECON 4880	Analysis of Economic Problems (ECON Capstone)	3
ECON 37XX or higher (Required for major)		3
Minor 37XX or higher (Required for minor)		3
Elective 37XX or higher		3
Elective 37XX or higher		3
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
Elective		3
Elective 37XX or higher		3
ECON 37XX or higher (Required for major)		3
Minor 37XX or higher (Required for minor)		3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

To be competitive in the job market, economics majors must have knowledge of microeconomics, macroeconomics, and statistical techniques. They must also be able to apply the theory and statistical techniques they have learned to public policy issues and business problems and be able to present their conclusions. The learning objectives of the economics major are as follows:

### Microeconomics

The student will be able to discuss the characteristics of different market structures and how the structure of a market affects consumers. The student will also be able to explain the conditions that must be met for an economy to use its resources in the most efficient manner possible.

### Macroeconomics

The student will be able to explain the major macroeconomic goals: rapid economic growth, high employment, and stable prices and how the tools of monetary and fiscal policy can be used to achieve macroeconomic goals.

### Statistical Analysis

The student will be able to interpret descriptive statistics, the results of hypothesis tests, and regression estimates.

### Communication Skills

The student will be able to give a well-prepared presentation on an economic problem. By well-prepared, it is meant that the presentation clearly frames the topic of the presentation, discusses the relevant theory and evidence, correctly documents references, and proposes a conclusion consistent with the theory and evidence.

## "4+1" Bachelor's/Master's Program

The accelerated "4+1" program allows students to earn the MA in Economics in one year after completing their bachelor's degree. Students pursuing the MA in Financial Economics can complete the degree in three semesters. Undergraduate students can apply to take graduate courses after completing 78 semester hours with a GPA of 3.3 or higher. Students can take a maximum of nine semester hours of graduate coursework that can count both toward a bachelor's degree and either the MA in Economics or the MA in Financial Economics. Students who successfully complete the master's courses are encouraged to apply for a graduate assistantship.

Qualified students, including students who are not economics majors, can take the courses listed below after having met the following requirements:

- ECON 6912 Microeconomic Theory –
  - A grade of "A" or "B" in ECON 3710 Intermediate Microeconomic Theory, and a grade of "A" or "B" in MATH 1552 Applied Mathematics for Management or MATH 1570 Applied Calculus 1 or MATH 1571 Calculus 1; OR
  - A grade of "A" in ECON 2610 Principles 1: Microeconomics, MATH 1571 Calculus 1, and MATH 1572 Calculus 2 (in this case ECON 6912 Microeconomic Theory is taken in place of ECON 3710 Intermediate Microeconomic Theory)
- ECON 6922 Macroeconomic Theory –
  - A grade of "A" or "B" in ECON 3712 Intermediate Macroeconomic Theory, and a grade of "A" or "B" in MATH 1552 Applied Mathematics for Management or MATH 1570 Applied Calculus 1 or MATH 1571 Calculus 1; OR
  - A grade of "A" in ECON 2630 Principles 2: Macroeconomics, MATH 1571 Calculus 1, and MATH 1572 Calculus 2 (in this case ECON 6922 Macroeconomic Theory is taken in place of ECON 3712 Intermediate Macroeconomic Theory)
- ECON 6939 The Economics of Financial Markets and Institutions –
  - A grade of "A" or "B" in ECON 3712 Intermediate Macroeconomic Theory, and a grade of "A" or "B" in MATH 1552 Applied Mathematics for Management or MATH 1570 Applied Calculus 1 or MATH 1571 Calculus 1
- ECON 6945 Public Finance –
  - A grade of "A" or "B" in ECON 6912 Microeconomic Theory
- ECON 6976 Econometrics –
  - A grade of "A" or "B" in ECON 6904 Quantitative Methods for Economics; OR
  - A grade of "A" in ECON 3790 Statistics for Business and Economics or STAT 3743 Probability and Statistics, and a grade of "A" in MATH 1552 Applied Mathematics for Management or MATH 1570 Applied Calculus 1 or MATH 1571 Calculus 1

## Minor in Economics

An economics minor complements many different majors. Students taking a minor in economics must meet the requirements of one of the following tracks:

- Economics
- Economics with Statistics

Courses at the 1500-level cannot be counted toward the minor. ECON 3790 cannot be counted as an elective in this track.

### Economics Track

COURSE	TITLE	S.H.
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
12 semester hours of upper-division economics electives other than ECON 3790		12
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Economics with Statistics

An economics minor complements many different majors. Students taking a minor in economics must meet the requirements of one of the following tracks:

- Economics
- Economics with Statistics

Courses at the 1500-level cannot be counted toward the minor.

### Economics with Statistics

COURSE	TITLE	S.H.
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
ECON 3790	Statistics for Business and Economics	5
9 semester hours of electives in economics at the 3700-level or higher		9
<b>Total Semester Hours</b>		<b>20</b>

## Department of English

(330) 941-3414

### Welcome to the English Department

The English department offers numerous degree and certificate programs, including the following:

- **Bachelor of arts (BA)** degrees in English (p. 290) and Professional & Technical Writing (PTW) (p. 296)
- Undergraduate **minors** in English Studies (p. 298), British and American Literature (p. 298), Professional & Technical Writing (PTW) (p. 299), Linguistics (p. 299), and Creative Writing (p. 298)
- **Master of Arts (MA)** degrees in English (p. 643) and in English with a PTW focus (p. 643)
- A consortial master of fine arts (p. 668) (**MFA**) degree
- **Graduate certificates** in Literature for Children and Young Adults (p. 758), Teaching of Writing (p. 760), Teaching English to Speakers of Other Languages (TESOL (p. 759)), and Professional & Technical Writing (PTW) (p. 759)

The department also advises students seeking teaching licensure in Integrated Language Arts and in Middle Childhood Language Arts.

## Mission

The Department of English at Youngstown State University believes that educated citizens must use language effectively and appreciate the diversity and complexity of their culture. To this end, the department seeks to improve students' abilities to read and write, to think analytically and creatively, to appreciate the aesthetics of literature, and to value diverse cultures.

In addition, the department strives to develop and disseminate insights related to literature, writing, language, culture, and pedagogy through excellent teaching, research and scholarly activity, service to the University, and broad-based community involvement.

For more information, visit the Department of English (<http://www.yсу.edu/academics/college-liberal-arts-social-sciences/english-major>).

### Chair

**Jeffrey M. Buchanan**, Ph.D., Chair, Professor

### Professor

**Tiffany M. B. Anderson**, Ph.D., Assistant Professor

**Corey E. Andrews**, Ph.D., Professor

**Diana Awad-Scrocco**, Ph.D., Assistant Professor

**Kevin E. Ball**, Ph.D., Professor

**Rebecca A. Barnhouse**, Ph.D., Professor

**Christopher Barzak**, M.F.A., Professor

**Laura L. Beadling**, Ph.D., Associate Professor

**Jennifer Behney**, Ph.D., Assistant Professor

**Terry Benton**, Ph.D., Assistant Professor

**Kristine Blair**, Ph.D., Professor

**Philip Sean Brady**, Ph.D., Professor

**Suzanne Diamond**, Ph.D., Professor

**Timothy Francisco**, Ph.D., Professor

**Julia M. Gergits**, Ph.D., Professor

**Jay L. Gordon**, Ph.D., Associate Professor

**Stacy Graber**, Ph.D., Assistant Professor

**Lucas D. Hardy**, Ph.D., Associate Professor

**Alena Kirova**, Ph.D., Assistant Professor

**Nicole Pettitt**, Ph.D., Assistant Professor

**Steven Reese**, Ph.D., Professor

**Dolores V. Sisco**, Ph.D., Assistant Professor

**Linda J. Strom**, Ph.D., Associate Professor

**Stephanie A. Tingley**, Ph.D., Professor

**Cynthia Vigliotti**, M.A., Assistant Professor

### Instructor

**Amy Flick**, M.A., Instructor

Guy Shebat, M.A., Instructor

## Majors

- BA in English (p. 295)
- BA in Professional and Technical Writing (PTW) (p. 296)

## Minors

- Minor in English Studies (p. 298)
- Minor in British and American Studies (p. 298)
- Minor in Professional Writing and Editing (p. 299)
- Minor in Web Communications (p. 299)
- Minor in Linguistics (p. 299)
- Minor in Creative Writing (p. 298)

### ENGL 1509 Academic English for Non-native Speakers 3 s.h.

Development of writing and reading comprehension skills in English through outlining, summary, and response. Emphasis on vocabulary, main idea, detail, and conclusion in assigned reading and writing. Entrance on basis of English-as-a-Second-Language placement test. Must be taken until a grade of C or better is achieved. May be repeated once with a different topic. Does not count toward a degree. Grading is ABC/NC.

### ENGL 1512 English Conversation for Non-native Speakers 1 s.h.

Development of conversation skills. Focus on oral-aural fluency, idiomaticity, extracting and organizing information, and situation-oriented communication strategies. Emphasis on meaningful topics relevant to the students' pursuit of their academic goals. Entrance on basis of English-as-a-Second-Language placement test. Does not count toward a degree. Grading is ABC/NC.

### ENGL 1539 Fundamentals of College Writing 4 s.h.

Intensive individualized instruction in written communication and college-level reading practices in a computer-assisted environment. Open to students based on their Composition and Reading Placement Test results; does not count toward the graduation requirement in composition. Grading for English 1539 is ABC/NC. Does not count toward the graduation requirement in composition and does not count toward a degree.

### ENGL 1540 Introduction to College Writing 3 s.h.

Practice in adapting college-level writing conventions, organizational strategies, and revision and editing techniques to a variety of writing tasks. Focus on responding to written texts in ways that demonstrate expressive, analytical, and evaluative thinking. Students divide their time between regular classrooms and computer classrooms, where they have the opportunity to acquire and develop basic word-processing and electronic communication skills. Does not count toward the graduation requirement in composition. Open to students on the basis of Composition and Reading Test results. Grading is ABC/NC. Does not count toward the graduation requirement in composition and does not count toward a degree.

### ENGL 1550 Writing 1 3 s.h.

Strategies for writing as a means of critical inquiry, with focus on writing processes and on the roles of writer, audience, and purpose as they affect writing. Students divide their time between regular and computer classrooms, where they acquire and develop basic word-processing and electronic communication skills. Open to students on the basis of Composition and Reading Test results or successful completion of ENGL 1509 or ENGL 1539 or ENGL 1540. Grading is ABCDF but must earn a "C" or better to satisfy the General Education requirement and continue to ENGL 1551 or ENGL 1551H.

### ENGL 1550C Writing 1 with Corequisite 3 s.h.

Strategies for writing as a means of critical inquiry, with focus on writing processes and on the roles of writer, audience, and purpose as they affect writing. Students divide their time between regular and computer classrooms, where they acquire and develop basic word-processing and electronic communication skills. This four hour course includes three regular hours of English 1550 along with an additional credit hour of writing support for students to aid in the development of college-level writing conventions, organizational strategies, and revision and editing techniques. Open to students based upon ACT/SAT scores or Composition Placement Test results. Grading is ABCDF but must earn a "C" or better to satisfy the General Education requirement and continue to ENGL 1551 or ENGL 1551H.

### ENGL 1550H Honors Writing 1 3 s.h.

Strategies for writing as a means of critical inquiry, with focus on writing processes and on the roles of writer, audience, and purpose as they affect writing. Writing assignments treat a broad range of ideas, especially in response to challenging readings. Stylistic experimentation is encouraged so that each student can develop a distinctive writing style. Students divide their time between regular classrooms and computer classrooms, where they have the opportunity to acquire and develop basic word-processing and electronic communication skills. Grading is ABCDF but must earn a "C" or better to satisfy the General Education requirement.

**Prereq.:** Eligibility for the Honors Program and permit on the basis of ACT/SAT scores or Composition Placement Test.

### ENGL 1551 Writing 2 3 s.h.

Practice in writing with emphasis on the process of investigation: exploration of topics, formulation of tentative theses, collection of data from suitable primary and secondary sources, and clear and appropriate presentation of the results of these inquiries. Students divide their time between regular and computer classrooms, where they have the opportunity to perform online research. Grading is ABCDF but must earn a C or higher to satisfy the General Education requirement.

**Prereq.:** ENGL 1550 with a grade of "C" or better or ACT/SAT scores or Composition and Reading Test results.

### ENGL 1551H Honors Writing 2 3 s.h.

Research on a topic of some depth, conducted independently and focused on a single project that results in a substantial investigative paper. Students divide their time between regular and computer classrooms, where they have the opportunity to perform online research. Grading is ABCDF but must earn a C or higher to satisfy the General Education requirement. 3 s.h.

**Prereq.:** Admission to the Honors Program and ENGL 1550H with a grade "C" or better.

### ENGL 1560 Language, Ethnicity, and Gender 3 s.h.

Basic understanding of relations between ethnicity, gender, and speech style, distinguishing linguistics, sociolinguistics, and women's issues. Examination of topics such as language, socialization, oral vs written language, language and class membership, and intra-ethnicity variation in Urban Vernacular English.

### ENGL 1590 Introduction to Literature 3 s.h.

Literary works from various genres and periods by culturally diverse authors. Students learn literary terms to analyze and interpret literature. A major goal is to improve critical thinking skills by relating literature to film, music, art and/or live performance.

**Gen Ed:** Arts and Humanities.

### ENGL 1590H Honors Introduction to Literature 3 s.h.

Primarily British or American works in a variety of genres, chosen to illuminate a central topic, are read and discussed critically to promote understanding and enjoyment of reading. Focused on one of four topics: Nature and the Environment, The Good Life, Science and Technology, or Social Justice.

**Gen Ed:** Arts and Humanities.

**ENGL 2601 Intermediate Writing for Teachers 3 s.h.**

A course to increase proficiency in critical reading and writing. Designed specifically for students entering the College of Education; reading, discussions and writing assignments emphasize current issues in Education. Assignments allow students to practice, collaboratively and individually, the kinds of writing used in teaching. Does not count toward the English major.  
**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 2610 World Literature 3 s.h.**

A survey of nonwestern literatures, emphasizing their cultural, historical, literary, and global contexts.  
**Gen Ed:** Arts and Humanities, International Perspectives, Social and Personal Awareness.

**ENGL 2615 Science Fiction and Fantasy Literature 3 s.h.**

Works from the science fiction and fantasy genres are read and discussed critically to promote understanding and enjoyment of reading.  
**Gen Ed:** Arts and Humanities.

**ENGL 2617 Women in Literature 3 s.h.**

Examination of works by and about women, drawn primarily from American and English writers.  
**Gen Ed:** Arts and Humanities, Domestic Diversity, Social and Personal Awareness.

**ENGL 2617H Honors Women in Literature 3 s.h.**

Examination of works by and about women, drawn primarily from American and English writers.  
**Gen Ed:** Arts and Humanities, Domestic Diversity, Social and Personal Awareness.

**ENGL 2618 American Literature and Diversity 3 s.h.**

Writers and works in relation to the diversity of American culture, politics, lifestyles, and social movements.  
**Gen Ed:** Arts and Humanities, Domestic Diversity, Social and Personal Awareness.

**ENGL 2618H Honors American Literature and Diversity 3 s.h.**

Writers and works in relation to the diversity of American culture, politics, lifestyles, and social movements.  
**Gen Ed:** Arts and Humanities, Domestic Diversity, Social and Personal Awareness.

**ENGL 2620 African Literature 3 s.h.**

Survey of African literature, with emphasis on experiences, styles, and themes of African writers, as well as the effects of African literature on cultural discourse throughout the world.  
**Gen Ed:** Arts and Humanities.

**ENGL 2623 Literature, Work, and Class 3 s.h.**

Analysis of literary representations of work and class, with special attention to working class authors, subjects, and styles. Focuses on social and historical influences, as well as the impact of social changes and new knowledge upon working-class literature.

**ENGL 2631 Mythology in Literature 3 s.h.**

Introductory study of myths, chiefly classical, with some attention to their origins and cultural significance, and of literary works, both classical and modern, in which myths are used.  
**Gen Ed:** Arts and Humanities.

**ENGL 2631H Honors Mythology in Literature 3 s.h.**

Introductory study of myths, chiefly classical, with some attention to their origins and cultural significance, and of literary works, both classical and modern, in which myths are used.  
**Gen Ed:** Arts and Humanities.

**ENGL 2646 Introduction to Fiction Writing 3 s.h.**

Examination and application of narrative techniques and conventions designed to introduce the basic elements of writing fiction.  
**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 2647 Introduction to Poetry Writing 3 s.h.**

Examination and application of poetic techniques and conventions designed to introduce the basic elements of writing poetry.  
**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 2651 Introduction to Language 3 s.h.**

Introduction to language principally for prospective teachers, with emphasis on the nature and function of language and its history, variations, and acquisition.  
**Prereq.:** Completion of ENGL 1551 with grade "C" or better.  
**Gen Ed:** Domestic Diversity, Social Science, Social and Personal Awareness.

**ENGL 2665 Introduction to Film Study 3 s.h.**

Introduction to film as a medium of artistic expression. Technical aspects of film and the relationship of film to other media and to society.  
**Gen Ed:** Arts and Humanities.

**ENGL 2665H Honors Introduction to Film Study 3 s.h.**

Introduction to film as a medium of artistic expression. Technical aspects of film and the relationship of film to other media and to society.  
**Gen Ed:** Arts and Humanities.

**ENGL 3700 Literary Study 3 s.h.**

Gateway course for English majors. Content to include key terms, strategies for reading, interpretation, research, and the conventions for assessing and using sources.  
**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 3703 Literature for Young Children 3 s.h.**

Study of the development of children's literature, giving the prospective elementary teacher criteria for evaluating books for children. Required of all elementary education candidates.  
**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 3704 Literature for Middle School Readers 3 s.h.**

Study of fiction and nonfiction genres for students in the middle school grades, including characters and authors from various cultures and ethnicities. Required of middle childhood reading and language arts majors.  
**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 3705 Young Adult Literature 3 s.h.**

Study of literature for and about adolescents and of related topics, including young adults as readers, critical standards for evaluation, and the use of adolescent literature in secondary schools.  
**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 3706 Introduction to Literary Theory 3 s.h.**

Provides an introduction to literary theory and criticism for English majors, emphasizing the history and application of critical approaches to literature. By reading core works in literary theory, students will learn application of theoretical approaches to various texts.  
**Prereq.:** ENGL 1551 grade of "C" or higher.

**ENGL 3710 British Literature 1 3 s.h.**

Beginnings to the Enlightenment. Students read a selection of British literature, emphasizing literary history and written analysis.  
**Prereq.:** ENGL 3700 or concurrent with ENGL 3700.

**ENGL 3711 British Literature 2 3 s.h.**

From Romanticism to the Present. Students read a selection of British literature, emphasizing literary history and written analysis.  
**Prereq.:** ENGL 3700 or concurrent with ENGL 3700.

**ENGL 3712 American Literature 1 3 s.h.**

Colonial period to 1865. Examine works from a range of American authors and genres drama, fiction, poetry, short stories, novels, and non-fiction essays within their cultural, historical, and literary contexts.  
**Prereq.:** ENGL 3700 or concurrent with ENGL 3700.

**ENGL 3713 American Literature 2 3 s.h.**

1865 to present. Examine works from a range of American authors and genres drama, fiction, poetry, short stories, and non-fiction essays within their cultural, historical, and literary contexts.  
**Prereq.:** ENGL 3700 or concurrent with ENGL 3700.

**ENGL 3730 Teaching Language Arts 3 s.h.**

Introduces middle school language arts teacher candidates to discussions about the teaching of writing and language and the development of methods of teaching reading, writing, and language.

**Prereq.:** ENGL 1551 with a grade of "C" or better.

**ENGL 3732 Images of Women 3 s.h.**

An examination through language, literature, folklore, film and myth of the ways in which the meanings and representations of women have been constructed and implemented in Western culture. Introduces key concepts and theoretical frameworks drawn from current scholarship about women.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 3737 Popular Culture Studies 3 s.h.**

Introduction to critical issues and approaches to popular culture through the study of various texts from literature, television, film, advertising, popular music, and computer cyberculture.

**Prereq.:** ENGL 1551 with grade of "C" or better.

**ENGL 3738 Selected Topics in World Literature 3 s.h.**

A comparative examination of a genre, historical period, or literary movement. May be repeated once with different topic.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 3738H Selected Topics World Lit 3 s.h.**

A comparative examination of a genre, historical period, or literary movement. May be repeated once with different topic.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 3739 Writing for Middle School Teachers 3 s.h.**

Designed to strengthen proficiency in writing, with emphasis on issues related to the teaching of English in middle school. Limited to students seeking middle childhood licensure with a concentration in Language Arts.

**Prereq.:** Admission to upper division status in the Beeghly College of Education.

**ENGL 3740 Advanced Writing 3 s.h.**

Designed to strengthen proficiency in essay writing, with emphasis on the development of ideas, analysis of style, clarity of thought and expression, editing, and proofreading.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 3741 Advanced Writing for Teachers 3 s.h.**

Designed to strengthen proficiency in writing, with emphasis on issues relating to the teaching of English. Limited to students seeking English or Integrated Language Arts certificates.

**Prereq.:** Admission to upper-division status in the College of Education.

**ENGL 3742 Business Writing 3 s.h.**

Introduces composition course to introduce essential elements of business writing: audience and task analysis; techniques of gathering, interpreting, and presenting business research; appropriate conventions, genres, styles, and formats; elements of collaborative, global, and electronic communication; and application of computer technology to document design and production. 3 s.h.

**Prereq.:** C or better in ENGL 1551.

**ENGL 3743 Professional and Technical Writing 3 s.h.**

Introduction to the elements of professional and technical writing, including audience and task analysis; techniques of gathering, interpreting, and presenting information; appropriate conventions, styles, and formats; elements of collaborative, global, and electronic communication; and application of computer technology to the design and production of documents.

**Prereq.:** ENGL 1551 with grade "C" or better.

**ENGL 3743H Professional and Technical Writing 3 s.h.**

Intermediate composition course to introduce essential elements of professional and technical communication: audience and task analysis; techniques of gathering, interpreting, and presenting information; appropriate conventions, styles, and formats; elements of collaborative, global, and electronic communication; and application of computer technology to document design and production.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 3744 Proposal and Report Writing 3 s.h.**

Application of rhetorical strategies and principles of design to the preparation of texts in two specific professional writing genres: the proposal (such as grant and research proposals) and the report (such as technical, feasibility, and other kinds of reports).

**Prereq.:** ENGL 1551 with grade "C" or better.

**ENGL 3745 Writing for Online Environments 3 s.h.**

Analysis of the rhetoric of online discourse and exploration of techniques for producing documents meant to be accessed online. Students will use web design applications and other social media platforms for producing their own online writing.

**Prereq.:** ENGL 1551 with grade "C" or better.

**ENGL 3746 Fiction Writing Workshop 3 s.h.**

Supervised workshop in which students develop their individual narrative skills, styles, and talents. May be repeated once.

**Prereq.:** ENGL 2646.

**ENGL 3747 Poetry Writing Workshop 3 s.h.**

Supervised workshop in which students develop their individual poetic skills, styles, and talents. May be repeated once.

**Prereq.:** ENGL 2647.

**ENGL 3748 Screenwriting 3 s.h.**

Examination and application of story concepts, theme and character development, structure, page design, and formatting. Students will develop their own story, treatment, and screenplay. May be repeated once.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 3749 Writing the Youth Novel 3 s.h.**

Examination and application of elements associated with novels for young readers. Students will develop their own narrative skills, styles, and talents in a supervised workshop. May be repeated once.

**Prereq.:** ENGL 2646.

**ENGL 3750 Language and Culture 3 s.h.**

Language structure as an instrument in human behavior and social institutions with emphasis on cross-cultural and intercultural communication.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 3751 Readings in Professional and Technical Writing 3 s.h.**

Analysis of technical and professional documents and texts that examine issues including clarity, choice of language, audience, tone, and writing in specific genres.

**Prereq.:** ENGL 1551 with grade "C" or better.

**ENGL 3755 Principles of Linguistic Study 3 s.h.**

Survey of elements of linguistic structure, methods of analysis and description, theoretical models, and the role of language in human affairs.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 3757 Development of the English Language 3 s.h.**

Sounds, vocabulary, grammar, and usage, from old to contemporary English.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 3765 Film Genres 3 s.h.**

Study of a particular type of film, such as comedy, western, documentary, or science fiction. May be repeated once with a different topic.

**Prereq.:** ENGL 3710, ENGL 3711, ENGL 3712, ENGL 3713 or ENGL 2665.

**ENGL 3770 American Literature in Historical Perspective 3 s.h.**

Poetry, prose, drama, and other forms of literary expression examined within the context of a specific aspect of American social, intellectual, and cultural history. May be repeated once with different topic.

**Prereq.:** ENGL 3700 or concurrent.

**Cross-listed:** AMER 3770.

**ENGL 3780 American Genres 3 s.h.**

Study of a particular type of literature (e.g., short story, autobiography, or film) as it developed in the United States. May be repeated once with a different topic.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 3790 Selected Topics in Multicultural Studies 3 s.h.**

Concentrated study of discourse in English, primarily literature, from cultures other than the dominant or majority culture of a given society. Designed to develop awareness and sensitivity to issues of difference, power, and cross-cultural perspectives, and to address and facilitate students' multicultural literacy. May be repeated once with different topic.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 4830 Major Figures in British Literature 3 s.h.**

Concentrated study of the works of a British writer who has contributed significantly to the literary tradition. May be repeated once with different topic.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 4831 British Genres, Circles, and Movements 3 s.h.**

Study of a literary genre, a group of writers who shared a cultural context or who influenced one another's work, or a trend or development in literature. May be repeated once with different topic.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 4843 Advanced Professional and Technical Writing 3 s.h.**

Advanced instruction in professional and technical writing, expanding on knowledge and skills developed in ENGL 3743, with emphasis on the creation and design of complex documents using tools such as Microsoft Word and Adobe InDesign.

**Prereq.:** ENGL 3743 with grade "C" or better.

**ENGL 4849 Professional and Technical Editing 3 s.h.**

Study of the skills needed to make appropriate decisions about the content, grammar, mechanics, style, organization, and format of scholarly, trade, journalistic, and other professional publications, including newsletters and electronic publications. Topics include stages in the publishing process, proofreading, hard-copy versus online editing, mechanical and substantive editing, and the use of house and press styles.

**Prereq.:** Completion of ENGL 3743 with grade "C" or better.

**ENGL 4850 Sociolinguistics 3 s.h.**

An investigation of the relationship between language and society. Includes discussion of dialects and standard language, language planning, linguistic identity, multi- and bilingualism, class, gender, ethnicity, and social interaction. Listed also as FNGL 4850.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 4851 Language Acquisition 3 s.h.**

A study of research on the learning of first and second languages. Topics include developmental sequences, learner variables, critical periods and conditions for learning, and the roles of input and interaction. The course is designed for those planning to teach languages. Listed also as FNGL 4851.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 4852 Linguistics and Literacy 3 s.h.**

Examination of the linguistic, social, and cultural dimensions of reading and writing and their impact on literacy acquisition and performance in language.

**Prereq.:** ENGL 2651 or ENGL 3755.

**ENGL 4855 Advanced Linguistics 3 s.h.**

In-depth study of selected issues in contemporary linguistic theory. Especially recommended for students pursuing advanced studies or a minor in linguistics or planning graduate studies.

**Prereq.:** ENGL 2651 or ENGL 3755.

**ENGL 4856 TESOL Methods 3 s.h.**

Introduction to teaching English as a Second Language (ESL), including reading, writing, listening, and speaking. Focus on using communicative methods with non-native speakers.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 4857 TESOL Practicum 3 s.h.**

Supervised teaching in English as a Second Language (ESL) program. Additionally, weekly seminar attendance required.

**Prereq.:** ENGL 4856.

**ENGL 4858 English Grammar 3 s.h.**

Descriptions and analysis of English language structure.

**Prereq.:** Completion of ENGL 1551 with grade "C" or better.

**ENGL 4859 Selected Topics in Discourse 3 s.h.**

Study in depth of a specific topic such as stylistics, semantics, or rhetoric. May be repeated once with different topic.

**Prereq.:** ENGL 3740, ENGL 3741, or ENGL 3755 as appropriate to topic.

**ENGL 4860 The Medieval World 3 s.h.**

British literature from the Anglo-Saxon period to the age of Chaucer, presented in the context of the period's history and culture.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 4862 Themes in American Literature 3 s.h.**

In-depth examination of a significant theme in American literature and culture through analysis of prose, poetry, drama, and/or film from different historical periods.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 4864 American Literary Conversations 3 s.h.**

Study of two or more American writers whose work is related. Focuses on writers who influenced each other, who wrote during the same period, or who explored similar themes or used similar literary styles.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 4865 Selected Topics in Film 3 s.h.**

An important aspect of or approach to film not covered in other courses. May be repeated once with different topic.

**Prereq.:** ENGL 3710, ENGL 3711, ENGL 3712, ENGL 3713, or ENGL 2665.

**ENGL 4870 Web Communications Capstone 3 s.h.**

A project course requiring the integration of website development tools and techniques, database development, effective writing for the web, and audience analysis, to produce a website of substantial depth and breadth. Oral and written presentations of final project. Listed also as CSIS 4870.

**Prereq.:** Senior standing and permission of instructor.

**Gen Ed:** Capstone.

**ENGL 4871 The Black Experience in American Literature 3 s.h.**

Study of African-American literature that explores the intersections between race, gender, and class in America, with emphasis on black minority culture, experience, and perspective.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 4881 Shakespeare and His World 3 s.h.**

Study of Shakespeare's works along with an exploration of the artistic and social forces that shaped his writing.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 4882 The English Renaissance 3 s.h.**

Study of British literature from 1500 to 1660 and the social, cultural, and artistic forces that influenced it.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 4886 Restoration and Eighteenth Century British Literature 3 s.h.**

Study of British literature of the period and the social, cultural, and artistic forces that influenced it.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 4887 The Romantic Period 3 s.h.**

Study of British literature from 1776 to 1832 and the social, cultural, and artistic forces that influenced it.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 4890 Senior Seminar 3 s.h.**

Study of literature, linguistics, or criticism and theory requiring a long, critical, research-based paper.

**Prereq.:** ENGL 3710, ENGL 3711, ENGL 3712 or ENGL 3713.

**Gen Ed:** Capstone.

**ENGL 4891 Individual Study 1-3 s.h.**

Exploration of a topic in English studies. An academic project or written report produced in consultation with an English instructor is required. May be repeated with different topics for a maximum of 3 s.h.

**Prereq.:** Senior standing in English and department permit.

**ENGL 4892 Nineteenth Century British Literature Studies 3 s.h.**

Nineteenth-century writers, works, and themes read in the context of the period's culture and history.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 4895 Early Twentieth Century British Studies 3 s.h.**

Literature read in the context of the period's literary movements, culture, and history.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 4896 British Literature from World War II to the Present 3 s.h.**

Literature read in the context of the period's literary movements, culture, and history.

**Prereq.:** ENGL 3700 or concurrent.

**ENGL 4897 English Internship 1-3 s.h.**

Supervised experience directed by an English faculty member and a designated representative of a participating organization. Enrollment is contingent upon the availability of internships. Students are selected on the basis of qualifications including GPA, courses taken, recommendations and an interview.

**Prereq.:** 12 hours of English, junior or senior standing, and a department permit.

**ENGL 4898 Professional and Technical Writing Internship 1-3 s.h.**

Supervised work-and-learning experiences in professional communication under the direction of a faculty member and an employee of a participating firm. Internship encompasses 10 to 20 hours of student time each week. Enrollment is contingent upon the availability of internships. Students are selected on the basis of their current resume, brief statement of interest, and faculty recommendations. May be repeated with the approval of the department chairperson.

**Prereq.:** ENGL 3743 with grade "C" or better.

**ENGL 4899 Professional and Technical Writing Senior Project 3 s.h.**

Capstone experience for the Professional Writing and Editing major. Individualized research, analysis, development, and oral presentation of a project that incorporates audience-appropriate writing, design, and/or editing in a usable high-quality product. Taken during the students final undergraduate year.

**Prereq.:** ENGL 3743 with grade "C" or better.

**Gen Ed:** Capstone.

## Bachelor of Arts in English

The English literature major requires 42 semester hours. This curriculum sheet includes general education requirements and the minor. You'll take electives to complete the minimum 120 sh for graduation.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies 12		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	3
Arts and Humanities		6
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective/First-Year Experience		3
<b>Foreign Language Requirement</b>		
FNLG 1550	Elementary Foreign Language	4
FNLG 2600	Intermediate Foreign Language	4
<b>Multicultural Studies</b>		3

Choose one: ENGL 2617 (Women in Literature), 2618 (American Literature and Diversity), 2620 (African Literature), 3732 (Images of Women), 3790 (Sel. Topics in Multicultural Studies), 4850 (Sociolinguistics), or 4871 (Black Experience in American Literature)

**Major Requirements**

ENGL 3700	Literary Study	3
ENGL 3706	Introduction to Literary Theory	3
ENGL 3710	British Literature 1	3
ENGL 3711	British Literature 2	3
ENGL 3712	American Literature 1	3
ENGL 3713	American Literature 2	3
ENGL 4890	Senior Seminar (Capstone)	3

**Language Studies**

ENGL 3755	Principles of Linguistic Study	3
or ENGL 3757	Development of the English Language	3

**British Literature Studies**

Select one of the following:

ENGL 4830	Major Figures in British Literature	
ENGL 4831	British Genres, Circles, and Movements	
ENGL 4860	The Medieval World	
ENGL 4881	Shakespeare and His World	
ENGL 4882	The English Renaissance	
ENGL 4886	Restoration and Eighteenth Century British Literature	
ENGL 4887	The Romantic Period	
ENGL 4892	Nineteenth Century British Literature Studies	
ENGL 4895	Early Twentieth Century British Studies	
ENGL 4896	British Literature from World War II to the Present	

**American Literature Studies**

Select one of the following: 3

ENGL 3770	American Literature in Historical Perspective	
ENGL 3780	American Genres	
ENGL 4862	Themes in American Literature	
ENGL 4864	American Literary Conversations	
ENGL 4871	The Black Experience in American Literature	

Select one additional British or American Literatures Studies Course from the above list (The course must cover a period before 1900.) 3

**Advanced Writing**

Select one of the following: 3

JOUR 3716	Introduction to Magazine Journalism	
JOUR 3717	Editorial and Opinion Writing	
JOUR 3721L	Journalism Workshop	
ENGL 3740	Advanced Writing	
ENGL 3741	Advanced Writing for Teachers	
ENGL 3743	Professional and Technical Writing	
ENGL 3744	Proposal and Report Writing	
ENGL 3746	Fiction Writing Workshop	
ENGL 3747	Poetry Writing Workshop	
ENGL 3748	Screenwriting	

**Minor** 18

**Total Semester Hours** 108

This plan is a road-map to graduation, but you have many options in how you manage your schedule. Speak to a department advisor for help creating a plan that will help you to achieve your professional goals (call 330-941-3414 or email the literature coordinator listed on the department website).



Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
NS XXXX		3
AH XXXX		3
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
FNLG 1550	Elementary Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
SS XXXX		3
SPA XXXX		3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
FNLG 2600	Intermediate Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
ENGL 3700	Literary Study	3
ENGL 3755 or ENGL 3757	Principles of Linguistic Study or Development of the English Language	3
ENGL 26XX, 37XX, or 48XX:	Multicultural Studies <sup>5</sup>	3
Minor XXXX		3
NS/Lab		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 3710	British Literature 1	3
ENGL 3712	American Literature 1	3
Minor course		3
SS		3
SPA		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
ENGL 3711	British Literature 2	3
ENGL 3713	American Literature 2	3
Minor course: Upper-division		3
Social Science		3
Arts and Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ENGL 48XX:	British Literature <sup>1</sup>	3
ENGL 37XX or 48XX:	American Literature <sup>2</sup>	3
ENGL or JOUR 37XX:	Advanced Writing <sup>3</sup>	3
ENGL 37XX or 48XX:	Popular Culture Studies <sup>4</sup>	3
MINOR:	Upper-division	3
ELECT		3
<b>Semester Hours</b>		<b>18</b>
<b>Year 4</b>		
<b>Fall</b>		
ENGL 36XX or 48XX:	Upper-Div Amer or Brit Lit <sup>1</sup> OR <sup>2</sup>	3
Minor:	Upper-division	3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>12</b>

<b>Spring</b>		
ENGL 4890	Senior Seminar	3
Minor: Upper-division		3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>120</b>

- For the upper-division British Literature requirement, pick one from this list: 4830 (Major Figures in British Literature), 4831 (British Genres, Circles, and Movements), 4860 (The Medieval World), Shakespeare and His World), 4882 (The English Renaissance), 4886 (Restoration and Eighteenth Century British Literature), 4887 (The Romantic Period), 4892 (Nineteenth Century British Literature Studies), 4895 (Early 20th Century British Studies), or 4896 (British Literature–WW II to the Present).
- For the upper-division American Literature requirement, pick one from the following list: 3770 (American Literature in Historical Perspective), 3780 (American Genres), 4862 (Themes in American Literature), 4864 (American Literary Conversations), 4871 (The Black Experience in American Literature).
- For the Advanced Writing requirement, pick one of the following courses (all of these require completion of Comp 2 as a prerequisite, and some have additional prerequisites—check the course descriptions): JOUR 3716 (Intro to Magazine Journalism), 3717 (Editorial and Opinion Writing), JOUR 3721L (Journalism Workshop); ENGL 3740 (Advanced Writing), 3741 (Advanced Writing for Teachers), 3743 (Prof and Tech Communication), 3744 (Proposal and Report Writing), 3746 (Fiction Writing Workshop), 3747 (Poetry Writing Workshop), 3748 (Screewriting), 3849 (Writing the Youth Novel)
- For the Popular Culture Studies requirement, take one of the following: 3750 (Language and Culture), 3765 (Film Genres), 3737 (Popular Culture Studies), 4865 (Selected Topics in Film).

## Learning Outcomes

The English Department has established the following learning outcomes for students completing the English major:

- English majors will deploy varied strategies for engaging with literature on the levels of words, appropriate parts of texts, whole texts, contexts, and criticism.
- English majors will be able to situate texts in the appropriate literary, historical, and cultural contexts.
- English majors will be able to analyze how the production and reception of language and literature are influenced by differences of form, culture, and identity.
- English majors will effectively present and discuss ideas about literature and language in a manner that is appropriate for the situation.

## Bachelor of Arts in Professional and Technical Writing (PTW)

### Overview

The PTW program is designed to help you learn to write, edit, and design electronic and paper documents for businesses, organizations, and institutions. Successful PTW majors demonstrate many kinds of knowledge and skills valued in the field. As a PTW major, you'll analyze existing works—from web sites and manuals to policies and proposals—as well as produce your own original materials for your professional portfolio. Specifically, you will

- learn to produce clear, effective, well-edited writing that serves the needs and interests of various audiences;

- learn to adapt to working environments that are changing rapidly—especially in terms of information technology;
- develop a specialty in a specific field or type of working environment in which you'd like to put your PTW knowledge and skills to use.

Majors in PTW enjoy successful careers as writers, editors, and document developers. Our graduates have gotten work as professional and technical writers at Ohio companies like Radcom and Rockwell Automation, as grant writers at regional nonprofits, as marketing and public relations specialists around the nation, and as teachers, trainers and consultants in the field. Many have continued their studies in graduate programs as well.

A major in professional and technical writing requires 63 semester hours, distributed as follows:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1550	Writing 1	
CMST 1545	Communication Foundations	
Mathematics Requirement		
MATH 2623	Quantitative Reasoning	
Arts and Humanities		6
Natural Sciences (2 courses, one must include a lab)		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
Foreign Language Requirement		8
Foreign Language 1550		4
Foreign Language 2600		4
<b>I. The Core (27 s.h.)</b>		
ENGL 3740	Advanced Writing	3
ENGL 3743	Professional and Technical Writing	3
ENGL 3744	Proposal and Report Writing	3
ENGL 3745	Writing for Online Environments	3
ENGL 3751	Readings in Professional and Technical Writing	3
ENGL 3755	Principles of Linguistic Study	3
ENGL 4843	Advanced Professional and Technical Writing	3
ENGL 4849	Professional and Technical Editing	3
ENGL 4899	Professional and Technical Writing Senior Project	3
<b>II. Writing and Language Study (12 s.h.)</b>		
Take no more than three courses in any one category. Other courses may be substituted with approval.		12
Internship (1-3 s.h.)		
ENGL 4898	Professional and Technical Writing Internship	
Linguistics		
ENGL 4850	Sociolinguistics	
ENGL 4855	Advanced Linguistics	
ENGL 4858	English Grammar	
ENGL 4859	Selected Topics in Discourse	
Creative Writing		
ENGL 3746	Fiction Writing Workshop	
ENGL 3747	Poetry Writing Workshop	
ENGL 3748	Screenwriting	
Journalism		
JOUR 2622	News Reporting 1	
JOUR 3716	Introduction to Magazine Journalism	
JOUR 3717	Editorial and Opinion Writing	
JOUR 3760	News Reporting 2	

Course	Title	S.H.
<b>III. Critical Reading (6 s.h.)</b>		
Take any two literature courses in the English department.		
Please note: 2600-level courses may also be counted for GER credit		
<b>IV. Professional Area (18 s.h.)</b>		
Choose one of the five options listed below. 9 s.h. must be at the 3700-level or higher. Appropriate coursework can be found in the departmental programs listed for each area.		18
Option 1: Publication Design		
Option 2: Electronic Document Development		
Option 3: Technical/Scientific Writing		
Option 4: Organizational Writing		
Option 5: Independent Professional Area		
<b>Year 1</b>		
<b>Fall</b>		
Natural Sciences		3
Arts & Humanities		3
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
Foreign Language 1550		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
Social Sciences		3
Social & Personal Awareness		3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Foreign Language 2600		4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
ENGL 3743	Professional and Technical Writing	3
ENGL 3744	Proposal and Report Writing	3
PTW Prof Area crs. (1 of 6) <sup>1</sup>		3
Req. II (1 of 4) <sup>2</sup>		3
Natural Science/lab		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 3745	Writing for Online Environments	3
ENGL 3751	Readings in Professional and Technical Writing	3
PTW Prof Area crs. (2 of 6) <sup>1</sup>		3
Social Sciences		3
Social & Personal Awareness		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
ENGL 4843	Advanced Professional and Technical Writing	3
PTW Prof Area crs. (3 of 6) <sup>1</sup>		3
PTW Prof Area crs. (4 of 6) <sup>1</sup>		3
37/48xx Req. II (2 of 4) <sup>2</sup>		3
Arts & Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ENGL 3755	Principles of Linguistic Study	3
ENGL 4849	Professional and Technical Editing	3

PTW Prof Area crs. (5 of 6) <sup>1</sup>	3
37/48xx Req. II (3 of 4) <sup>2</sup>	3
37/48xx Req. III (1 of 2) <sup>3</sup>	3
<b>Semester Hours</b>	<b>15</b>
<b>Year 4</b>	
<b>Fall</b>	
37xx or 48xx Req. II (4 of 4) <sup>2</sup>	3
37xx or 48xx Req. III (2 of 2) <sup>3</sup>	3
ENGL 3740 Advanced Writing	3
Elective 37/48xx	3
Elective	3
<b>Semester Hours</b>	<b>15</b>
<b>Spring</b>	
ENGL 4899 Professional and Technical Writing Senior Project	3
PTW Prof Area crs. (6 of 6) <sup>1</sup>	3
Elective 37/48xx	3
Elective 37/48xx	3
<b>Semester Hours</b>	<b>12</b>
<b>Total Semester Hours</b>	<b>120</b>

## Notes:

1. The Professional Area requires 18SH in various areas; GER courses may be counted toward it.
2. Req. II includes 12 upper-division SH in non-PTW classes, including linguistics, journalism, and creative writing.
3. Req. III includes any **two** literature courses in the English department, 2600-level or higher.

Upper-division hours = 48

## Learning Outcomes

The English Department has established the following learning outcomes for students completing the professional and technical writing major:

- PTW majors will define, state, and achieve a specific purpose and target audience, recognizing and adjusting for budgetary and timeline constraints.
- PTW majors will create and implement appropriate formats and designs for specific audiences and purposes.
- PTW majors will use a problem-solving approach and a variety of resources to investigate a problem, acquire and assess information, and organize it effectively.
- PTW majors will design documents professionally, using appropriate technological resources, software and hardware, as well as appropriate elements of design.
- PTW majors will evaluate others' writing, accept and implement the recommendations of others in revision and editing. They will edit appropriately, using conventional grammar, spelling, and diction, and they will apply the appropriate style guide.

## Minor in British and American Literature

COURSE	TITLE	S.H.
ENGL 3700	Literary Study	3
ENGL 3710	British Literature 1	3
or ENGL 3711	British Literature 2	

ENGL 3712	American Literature 1	3
or ENGL 3713	American Literature 2	
Select one upper-division American Literature course from the following:		3
ENGL 3770	American Literature in Historical Perspective	
ENGL 3780	American Genres	
ENGL 4862	Themes in American Literature	
ENGL 4864	American Literary Conversations	
ENGL 4871	The Black Experience in American Literature	
Select one upper-division British Literature course from the following:		3
ENGL 4830	Major Figures in British Literature	
ENGL 4831	British Genres, Circles, and Movements	
ENGL 4860	The Medieval World	
ENGL 4881	Shakespeare and His World	
ENGL 4882	The English Renaissance	
ENGL 4886	Restoration and Eighteenth Century British Literature	
ENGL 4887	The Romantic Period	
ENGL 4892	Nineteenth Century British Literature Studies	
ENGL 4895	Early Twentieth Century British Studies	
ENGL 4896	British Literature from World War II to the Present	
ENGL 4890	Senior Seminar	3
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Creative Writing

Take six of the following courses. Note that ENGL 2646 (Fiction) and 2647 (Poetry) are prerequisites for the upper-division workshops in fiction and poetry.

COURSE	TITLE	S.H.
ENGL 2646	Introduction to Fiction Writing	3
ENGL 2647	Introduction to Poetry Writing	3
ENGL 3740	Advanced Writing	3
ENGL 3746	Fiction Writing Workshop	3
ENGL 3747	Poetry Writing Workshop	3
ENGL 3748	Screenwriting	3
ENGL 3749	Writing the Youth Novel	3

Total Semester Hours 18

## Minor in English Studies

COURSE	TITLE	S.H.
ENGL 3700	Literary Study	3
Select one of the following literature survey courses:		3
ENGL 3710	British Literature 1	
ENGL 3711	British Literature 2	
ENGL 3712	American Literature 1	
ENGL 3713	American Literature 2	

Select one upper division American Literature OR upper division British Literature from the following:

American Literature Courses	
ENGL 3770	American Literature in Historical Perspective
ENGL 3780	American Genres
ENGL 4862	Themes in American Literature
ENGL 4864	American Literary Conversations
ENGL 4871	The Black Experience in American Literature
British Literature Courses	
ENGL 4830	Major Figures in British Literature
ENGL 4831	British Genres, Circles, and Movements

ENGL 4860	The Medieval World
ENGL 4881	Shakespeare and His World
ENGL 4882	The English Renaissance
ENGL 4886	Restoration and Eighteenth Century British Literature
ENGL 4887	The Romantic Period
ENGL 4892	Nineteenth Century British Literature Studies
ENGL 4895	Early Twentieth Century British Studies
ENGL 4896	British Literature from World War II to the Present

Select one other literature course from the following: 3

ENGL 2610	World Literature
ENGL 2617	Women in Literature
ENGL 2618	American Literature and Diversity
ENGL 2620	African Literature
ENGL 2631	Mythology in Literature
ENGL 2665	Introduction to Film Study
ENGL 3703	Literature for Young Children
ENGL 3704	Literature for Middle School Readers
ENGL 3705	Young Adult Literature
ENGL 3738	Selected Topics in World Literature
ENGL 3765	Film Genres
ENGL 4865	Selected Topics in Film

Select two additional English Studies courses – one course from any two of the following groups: 6

**Group 1: Language, Writing, and Culture**

ENGL 2651	Introduction to Language
ENGL 3755	Principles of Linguistic Study
ENGL 3740	Advanced Writing
ENGL 3790	Selected Topics in Multicultural Studies

**Group 2: Journalism**

JOUR 2622	News Reporting 1
JOUR 2626	American Journalism
JOUR 3716	Introduction to Magazine Journalism
JOUR 3717	Editorial and Opinion Writing
JOUR 3723	Advanced Journalism Editing and Design
JOUR 4824	Press Law and Ethics

**Group 3: Creating Writing**

ENGL 2646	Introduction to Fiction Writing
ENGL 2647	Introduction to Poetry Writing
ENGL 3748	Screenwriting
ENGL 3746	Fiction Writing Workshop
ENGL 3747	Poetry Writing Workshop

**Group 4: Technical and Professional Communication**

ENGL 3743	Professional and Technical Writing
ENGL 3744	Proposal and Report Writing
ENGL 4849	Professional and Technical Editing

**Total Semester Hours** 18

## Minor in Linguistics

The minor in linguistics requires completion of a minimum of 18 semester hours including ENGL 3755 Principles of Linguistic Study. Contact Nicole Pettitt, Linguistic Program Director, for further details.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
ENGL 3755	Principles of Linguistic Study	3
<b>Group I</b>		
Select at least two courses: 6		

ENGL 3750	Language and Culture
ENGL 3757	Development of the English Language
ENGL 4850	Sociolinguistics
ENGL 4855	Advanced Linguistics
ENGL 4858	English Grammar
FRNC 3710	Applied French Phonetics
FRNC 4885	French Conversation and Composition Capstone
SPAN 3724	Spanish Pronunciation
SPAN 3735	Advanced Spanish Grammar and Composition
SPAN 3736	Introduction to Spanish Linguistics
SPAN 5855	Topics in Spanish Language and Linguistics

**Additional Coursework for Groups I and II**

Select at least 9 s.h. from the following: 9

ENGL 4851	Language Acquisition
ENGL 4856	TESOL Methods
ENGL 4857	TESOL Practicum
ENGL 4858	English Grammar
ENGL 4859	Selected Topics in Discourse
PHIL 2619	Introduction to Logic
PHIL 3714	Language and Mind
PHIL 3719	Symbolic Logic
CSCI 5835	Artificial Intelligence

**Total Semester Hours** 18

## Minor in Professional Writing and Editing

COURSE	TITLE	S.H.
ENGL 3743	Professional and Technical Writing	3
ENGL 3744	Proposal and Report Writing	3
ENGL 4843	Advanced Professional and Technical Writing	3
ENGL 4849	Professional and Technical Editing	3

Select two of the following: 6

ENGL 3740	Advanced Writing
ENGL 3745	Writing for Online Environments
ENGL 3751	Readings in Professional and Technical Writing
ENGL 3755	Principles of Linguistic Study

**Total Semester Hours** 18

## Minor in Web Communications

COURSE	TITLE	S.H.
CSIS 1590	Survey of Computer Science and Information Systems	3
INFO 3774	Multimedia Technology	4
INFO 3776	Client-Side Scripting Techniques	4
ENGL 3743	Professional and Technical Writing	3
ENGL 3744	Proposal and Report Writing	3
ENGL 4843	Advanced Professional and Technical Writing	3
or ENGL 4849	Professional and Technical Editing	

**Total Semester Hours** 20

## Department of Foreign Languages & Literatures

See Degree Requirements on the College of Liberal Arts and Social Sciences (p. 280) page for information about foreign language requirements.

## Contact Information

John Sarkissian, Department Chair

jesarkissian@ysu.edu

330-941-3460 or -3461

## Introduction to the Department

The Department of Foreign Languages and Literatures offers B.A. degrees in Italian and Spanish and, in conjunction with the Beeghly College of Education, B.S. degrees in Italian Education and Spanish Education.

The Department offers minors in French, Italian, and Spanish and has now introduced Certificate programs in those languages, which require 14 hours of coursework and study abroad (as opposed to the 18-19 hours required by minors).

The Department also offers a limited amount of course work in American Sign Language, Arabic, Chinese, Latin and Ancient Greek.

Students interested in French, Italian or Spanish, even if they are not majors or minors, are invited to participate in the French, Italian or Spanish Club.

## Learning Outcomes

The Department's learning outcomes for all modern language courses, the level of expectation depending on the level of the course, are as follows:

- **Cultural Understanding:** The student will develop an understanding and appreciation of the history and culture of those areas in which the target language is (or was) spoken.
- **Reading Comprehension:** The student will be able to read and understand a variety of materials written in the target language. These materials may include but are not limited to: novels, plays, poetry, newspaper and magazine articles, and private correspondence (e.g., business communications).
- **Listening Comprehension:** The student will be able to understand the target language when spoken in a variety of contexts. These contexts may include but are not limited to conversation with another individual or individuals, formal lectures, song and film.
- **Oral Expression:** The student will be able to carry on a conversation and deliver a speech in the target language.
- **Written Expression:** The student will be able to compose in the target language a variety of written documents. These documents may include but are not limited to formal and casual correspondence, essays and creative works.

## Advising

Advising is carried out by the Chair of the Department in consultation with the faculty in each language group. Student are advised to meet at least once a year with the Chair and encouraged to meet each semester.

## Study Abroad

The Department encourages all students to study abroad and sponsors its own program in Italy (since 2012) and is developing one in Colombia.

## Language Clubs

Each of the Department's three most heavily enrolled languages, French, Italian and Spanish, has a club for majors, minors and any other students who have an interest in that language. Club activities include regular meetings, conversation hours, organized dinners, and attendance at various events such as Opera Western Reserve and the Cleveland International Film Festival.

Chair

John E. Sarkissian, Ph.D., Professor, Chair

Professor

Jennifer Behney, Ph.D., Assistant Professor

Alena Kirova, Ph.D., Assistant Professor

Ndindi Masagara, Ph.D., Associate Professor

Diana Q. Palardy, Ph.D., Associate Professor

Carla Anne Simonini, Ph.D., Associate Professor

Gina Villamizar, Ph.D., Assistant Professor

## Majors

- BA in Italian (p. 306)
- BA in Spanish (p. 307)
- BS in Italian Education (in conjunction with Beeghly College of Education) (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-education/department-teacher-education/italian-p-12-multi-age-license/#curriculumshetext>)
- BS in Spanish Education (in conjunction with Beeghly College of Education) (<http://www.ysu.edu/academics/beeghly-college-education/spanish-education-major>)

## Minors

- French Minor (p. 308)
- Italian Minor (p. 309)
- Spanish Minor (p. 309)
- Greek Studies Minor (p. 308)
- Latin Minor (p. 309)

## Certificates

- French Certificate (p. 309)
- Italian Certificate (p. 309)
- Spanish Certificate (p. 310)

## American Sign Language

**ASL 1550 Elementary American Sign Language 1 2 s.h.**

Introduction to the fundamentals of American Sign Language (ASL), including vocabulary, syntax, and grammatical non-manual signals. Introduction to the history and culture of the Deaf Community. Grading is ABC/NC.

**ASL 1551 Elementary American Sign Language 2 2 s.h.**

Continuation of ASL 1550 with further development of vocabulary, syntax and grammatical non-manual signals and additional study of the history and culture of the Deaf Community.

**Prereq.:** ASL 1550.

**ASL 1552 Intermediate American Sign Language 1 2 s.h.**

Continuation of ASL 1551 with further development of vocabulary, syntax and grammatical non-manual signals and additional study of the history and culture of the Deaf Community.

**Prereq.:** ASL 1551.

**ASL 2600 Intermediate American Sign Language 2 2 s.h.**

Continuation of ASL 1552 with further development of vocabulary, syntax and grammatical non-manual signals and additional study of the history and culture of the Deaf Community.

**Prereq.:** ASL 1552.

## Arabic \*

### ARBC 1550 Elementary Arabic 4 s.h.

Intensive training in understanding, speaking, reading, and writing Arabic. Geography and daily life, as well as appreciation of the culture of Arabic speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

### ARBC 2600 Intermediate Arabic 4 s.h.

A continuation of ARBC 1550 with intensive training in understanding, speaking, reading, and writing Arabic. Geography and daily life, as well as appreciation of the culture of Arabic speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC).

**Prereq.:** ARBC 1550.

### ARBC 2605 Advanced Intermediate Arabic 1 3 s.h.

A continuation of ARBC 2600 with intensive training in understanding, speaking, reading, and writing Arabic. Geography and daily life, as well as appreciation of the culture of Arabic speakers, are studied.

**Prereq.:** ARBC 2600.

### ARBC 2606 Advanced Intermediate Arabic 2 3 s.h.

A continuation of ARBC 2605 with intensive training in understanding, speaking, reading, and writing Arabic.

**Prereq.:** ARBC 2605.

### ARBC 3701 Advanced Arabic 1 3 s.h.

A continuation of ARBC 2606 with intensive training in understanding, speaking, reading, and writing Arabic.

**Prereq.:** ARBC 2606.

### ARBC 3702 Advanced Arabic 2 3 s.h.

A continuation of ARBC 3701 with intensive training in understanding, speaking, reading, and writing Arabic.

**Prereq.:** ARBC 3701.

### ARBC 3799 Study Abroad in Arabic 1-15 s.h.

An individually-arranged program of foreign study in the Arabic language. Programs can be of two general types: (1) trips or residential programs sponsored by consortial universities, and (2) independent academic coursework through institutions with which YSU does not have a consortial agreement. A written statement detailing the student's academic plan must be approved by the Chair of Foreign Languages and the Dean of CLASS prior to the trip. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

**Prereq.:** Sophomore status and approval of the Chair of Foreign Languages.

\* Currently only ARBC 1550 and ARBC 2600 are regularly offered.

## Chinese\*

### CHIN 1550 Elementary Chinese 4 s.h.

Intensive training in understanding, speaking, reading, and writing Chinese. Geography and daily life, as well as appreciation of the culture of Chinese speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

### CHIN 2600 Intermediate Chinese 4 s.h.

Continuation of CHIN 1550 with intensive training in understanding, speaking, reading, and writing Chinese. Geography and daily life, as well as appreciation of the culture of Chinese speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC).

**Prereq.:** CHIN 1550.

### CHIN 2605 Advanced Intermediate Chinese 1 3 s.h.

A continuation of CHIN 2600 with intensive training in understanding, speaking, reading, and writing Chinese. Geography and daily life, as well as appreciation of the culture of Chinese speakers, are studied.

**Prereq.:** CHIN 2600 or placement test.

### CHIN 2606 Advanced Intermediate Chinese 2 3 s.h.

A continuation of CHIN 2605 with intensive training in understanding, speaking, reading, and writing Chinese.

**Prereq.:** CHIN 2605.

### CHIN 3701 Advanced Chinese 1 3 s.h.

A continuation of CHIN 2606 with intensive training in understanding, speaking, reading, and writing Chinese.

**Prereq.:** CHIN 2606.

### CHIN 3702 Advanced Chinese 2 3 s.h.

A continuation of CHIN 3701 with intensive training in understanding, speaking, reading, and writing Chinese.

**Prereq.:** CHIN 3701.

### CHIN 3799 Study Abroad in Chinese 1-15 s.h.

An individually-arranged program of foreign study in the Chinese language. Programs can be of two general types: (1) trips or residential programs sponsored by consortial universities, and (2) independent academic coursework through institutions with which YSU does not have a consortial agreement. A written statement detailing the student's academic plan must be approved by the Chair of Foreign Languages and the Dean of CLASS prior to the trip. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

**Prereq.:** sophomore status and approval of the Chair of Foreign Languages.

\* Currently only CHIN 1550 and CHIN 2600 are regularly offered.

## Foreign Languages\*

### FNLG 1550 Elementary Foreign Language 4 s.h.

Intensive training in understanding, speaking, reading, and writing a foreign language not regularly offered. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

### FNLG 1550H Honors Elementary Foreign Language 4 s.h.

Intensive training in understanding, speaking, reading, and writing a foreign language not regularly offered. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Students should achieve an intermediate-low level of proficiency. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

### FNLG 2600 Intermediate Foreign Language 4 s.h.

Intensive training in understanding, speaking, reading, and writing a foreign language not regularly offered. Geography and daily life, as well as appreciation of the culture of the speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC).

**Prereq.:** FNLG 1550 in the same language.

### FNLG 2601 Advanced Intermediate Foreign Language 1 3 s.h.

Intensive training in understanding, speaking, reading, and writing a foreign language not regularly offered. Geography and daily life, as well as appreciation of the cultures of speakers of the language, are studied.

**Prereq.:** FNLG 2600 in the same language.

### FNLG 2602 Advanced Intermediate Foreign Language 2 3 s.h.

A continuation of FNLG 2601 with intensive training in understanding, speaking, reading, and writing a foreign language not regularly offered.

**Prereq.:** FNLG 2601 in the same language.

### FNLG 2610 Foreign Film 3 s.h.

Study of representative films originally produced in a language other than English; examination of relevant critical theories and of historic and institutional factors affecting the development of the genre; special attention to cultural issues raised in the films.

**Gen Ed:** Arts and Humanities, International Perspectives, Social and Personal Awareness.

**FNLG 2610H Honors Foreign Film 3 s.h.**

Study of representative films originally produced in a language other than English; examination of relevant critical theories and of historic and institutional factors affecting the development of the genre; special attention to cultural issues raised in the films.

**Gen Ed:** Arts and Humanities, International Perspectives, Social and Personal Awareness.

**FNLG 2660 Women in the Ancient World 3 s.h.**

Study of various aspects of the lives of women in Ancient Greece and Rome. Emphasis on examination and evaluation of primary sources. All readings are in English.

**Gen Ed:** Social Science.

**FNLG 2660H Honors Women in the Ancient World 3 s.h.**

Study of various aspects of the lives of women in Ancient Greece and Rome. Emphasis on examination and evaluation of primary sources. All readings are in English.

**Gen Ed:** Social Science.

**FNLG 3701 Advanced Foreign Language 1 3 s.h.**

A continuation of FNLG 2602 with intensive training in understanding, speaking, reading, and writing in a foreign language not regularly offered.

**Prereq.:** FNLG 2602 in the same language.

**FNLG 3702 Advanced Foreign Language 2 3 s.h.**

A continuation of FNLG 3701 with intensive training in understanding, speaking, reading, and writing in a foreign language not regularly offered.

**Prereq.:** FNLG 3701 in the same language.

**FNLG 3799 Study Abroad in Foreign Language 1-15 s.h.**

An individually-arranged program of foreign study in a language not regularly offered. Programs can be of two general types: (1) trips or residential programs sponsored by consortial universities, and (2) independent academic coursework through institutions with which YSU does not have a consortial agreement. A written statement detailing the student's academic plan must be approved by the Chair of Foreign Languages and the Dean of CLASS prior to the trip. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

**Prereq.:** sophomore status and approval of the Chair of Foreign Languages.

**FNLG 4801 Methods of Foreign Language Teaching 3 s.h.**

Methods of teaching World Languages (P-12) that are focused on developing students' target language communicative proficiency and are based on the ACTFL World-Readiness Standards for Learning Languages (W-RSLLS). Course concentrates on engaging students in the Interpretive, Interpersonal, and Presentational Modes of Communication, Integrated Performance Assessments (IPAs), and the integration of technology into World Language teaching. This course requires 80 hours of field experience in a local high school.

**Prereq.:** Permission of the Department Chair.

**FNLG 4899 Professional Development for Teachers 1 s.h.**

Students will 1) attend an appropriate professional conference and produce a journal detailing their experiences at the conference, and 2) assemble and present a portfolio of their previous language coursework to the faculty and other interested parties.

**Prereq.:** Permission of the Department Chair.

\* FNLG 1550, FNLG 1550H, FNLG 2600, FNLG 2601, FNLG 2602 and FNLG 3799 are used as the YSU equivalents for credit students may have earned in foreign languages not offered by the Department of Foreign Languages.

## French

**FRNC 1550 Elementary French 4 s.h.**

Intensive training in understanding, speaking, reading, and writing French. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

**FRNC 2600 Intermediate French 4 s.h.**

Intensive training in understanding, speaking, reading, and writing French; knowledge of the natural and cultural features of French-speaking countries and regions. Assignments in the Language Learning and Resource Center (LLRC).

**Prereq.:** Placement test or FRNC 1550.

**FRNC 2605 Advanced Intermediate French 3 s.h.**

Advanced training in understanding, speaking, reading, and writing French; knowledge of the natural and cultural features of French-speaking countries and regions. Assignments in the Language Learning and Resource Center (LLRC).

**Prereq.:** Placement test or FRNC 2600.

**FRNC 2606 Intensive French Review 3 s.h.**

Intensive review of basic French speaking and writing language skills. Grammatical structures and vocabulary in context.

**Prereq.:** Placement test or FRNC 2600.

**FRNC 3701 Service Learning in French 1-2 s.h.**

Using the French language to engage in community service or an internship. Completion of a journal written in French and detailing the experience is required. May be repeated up to 4 s.h.

**Prereq.:** Approval of Department Chair, and FRNC 2600 or placement test.

**FRNC 3710 Applied French Phonetics 3 s.h.**

A systematic study of French phonetics to correct defects in pronunciation and intonation and give students a better understanding of the differences between the French and English sound systems.

**Prereq.:** FRNC 2605 and FRNC 2606.

**FRNC 3716 Advanced French Grammar and Composition 3 s.h.**

A systematic study of French language morphology, sentence structure, and usage applied to a variety of written discourse styles. Contrast with English discourse styles and effective grammatical use.

**Prereq.:** FRNC 2605 and FRNC 2606.

**FRNC 3717 Advanced French Conversation 3 s.h.**

Development of oral expression through discussion of current topics in the context of French and Francophone culture, politics, and economics. Expansion of vocabulary.

**Prereq.:** FRNC 2605 and FRNC 2606.

**FRNC 3720 Literature and Culture: France 3 s.h.**

A study of major works of French literature through its history, placed in the cultural context which helped produce them.

**Prereq.:** FRNC 2605 and FRNC 2606.

**FRNC 3725 Francophone Literature and Culture 3 s.h.**

A study of major works representative of Francophone literature in their cultural context.

**Prereq.:** FRNC 2605 and FRNC 2606.

**FRNC 3736 Introduction to French Linguistics 3 s.h.**

Examination of basic concepts and issues of modern French linguistic theory. Emphasis is on sociolinguistics with attention also to phonology, morphology, syntax and pragmatics.

**Prereq.:** FRNC 2605 and FRNC 2606.

**FRNC 3740 French for Business and Communication 3 s.h.**

Development of oral and written communication in business and other practical situations. Business practices in French-speaking countries.

**Prereq.:** FRNC 2605 and FRNC 2606.

**FRNC 3750 French Civilization and Culture 3 s.h.**

A study of contemporary French civilization and culture, focusing on what the French consider typical of their character, as exemplified by their traditions, magazines, films, and heroes. Readings and class work in French.

**Prereq.:** FRNC 2605 and FRNC 2606.

**FRNC 3780 French Composition and Conversation Review 3 s.h.**

Review course emphasizing impromptu conversations and in-class essay writing. Intended for students who need additional coursework to achieve the level of Advanced Low on the ACTFL Oral Proficiency Interview and/or the ACTFL Writing Proficiency Test. May not be counted toward the major. Grading is CR/NC.

**Prereq.:** 15 s.h. in French at the 3700 level or above and permission of Chair.

**FRNC 3799 Study Abroad in French 1-15 s.h.**

An individually-arranged program of foreign study in the French language. Programs can be of two general types: (1) trips or residential programs sponsored by consortial universities, and (2) independent academic coursework through institutions with which YSU does not have a consortial agreement. A written statement detailing the student's academic plan must be approved by a member of the French faculty, the chair of Foreign Languages and the dean of CLASS prior to the trip. Credit toward fulfillment of requirements for the French major will be determined by the chair of Foreign Languages and not the French faculty. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

**Prereq.:** Sophomore status and approval of the chair of Foreign Languages.

**FRNC 4885 French Conversation and Composition Capstone 3 s.h.**

Capstone course emphasizing impromptu conversations and in-class essay writing. Students must achieve a level of Advanced Low on both the ACTFL Oral Proficiency Interview and the ACTFL Writing Proficiency Test.

**Prereq.:** 15 s.h. in French at the 3700 level or above and permission of Chair.

**FRNC 4886 French Composition and Conversation Capstone 3 s.h.**

Capstone course emphasizing impromptu conversations and in-class essay writing. Student must achieve a level of Intermediate High on both the ACTFL Oral Proficiency Interview and the ACTFL Writing Proficiency Test.

**Prereq.:** 15 s.h. in French at the 3700 level or above and permission of Chair.

## Greek

**GRK 1550 Elementary Ancient Greek 4 s.h.**

Introduction to Ancient Greek with emphasis on those aspects of grammar most essential for developing the ability to read Greek. Translation of simple Ancient Greek texts into English. Grading is ABC/NC.

**GRK 2600 Intermediate Ancient Greek 4 s.h.**

Continuation of GRK 1550 with emphasis on more complex aspects of Ancient Greek grammar. Translation of more advanced Ancient Greek texts, including some authentic passages.

**Prereq.:** Placement test or GRK 1550.

**GRK 2603 Directed Reading in Ancient Greek 1 3 s.h.**

Reading of selections from an Ancient Greek author or genre with emphasis on translation. Review of Ancient Greek grammar and introduction of some advanced grammatical constructions not covered in Ancient Greek 1550 or 2600. May be repeated once if topic is different.

**Prereq.:** Permission of Chair and either placement test or GRK 2600.

**GRK 3753 Directed Reading in Ancient Greek 2 3 s.h.**

Reading of selections from an Ancient Greek author or genre with emphasis on translation and interpretation of text; review of Ancient Greek grammar, introduction of relevant modern scholarship, and writing of evaluative essays. May be repeated once if topic is different.

**Prereq.:** GRK 2603 and permission of Chair.

**GRK 4883 Directed Reading in Ancient Greek 3 3 s.h.**

Reading of selections from an Ancient Greek author or genre with emphasis on translation and interpretation of text. Review of Ancient Greek grammar. Writing of a research paper. May be repeated once if topic is different.

**Prereq.:** GRK 3753 and permission of Chair.

## Hebrew\*

**HBRW 1550 Elementary Hebrew 4 s.h.**

Beginning training in understanding, speaking, reading, and writing Hebrew. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

**HBRW 2600 Intermediate Hebrew 4 s.h.**

Intensive training in understanding, speaking, reading, and writing Hebrew; knowledge of geography and daily life as well as appreciation of the culture of Hebrew speakers. Assignments in the Language Learning and Resource Center (LLRC).

**Prereq.:** Placement test or HBRW 1550.

**HBRW 2605 Advanced Intermediate Hebrew 3 s.h.**

Reading and discussion in Hebrew of selections from the Hebrew Scripture.

**Prereq.:** Placement test or HBRW 2600.

**HBRW 3706 Readings in Hebrew Scripture 3 s.h.**

Reading and discussion in Hebrew of selections from the Hebrew Scriptures. May be repeated once if the texts studied are different.

**Prereq.:** HBRW 2605.

**HBRW 3799 Study Abroad in Hebrew 1-15 s.h.**

An individually-arranged program of foreign study in the Hebrew language. Programs can be of two general types: (1) trips or residential programs sponsored by consortial universities, and (2) independent academic coursework through institutions with which YSU does not have a consortial agreement. A written statement detailing the student's academic plan must be approved by a member of the Hebrew faculty, the chair of Foreign Languages and the dean of CLASS prior to the trip. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

**Prereq.:** Sophomore status and approval of the chair of Foreign Languages.

\* Currently only HBRW 1550 and HBRW 2600 are regularly offered.

## Italian

**ITAL 1550 Elementary Italian 4 s.h.**

Intensive training in understanding, speaking, reading, and writing Italian. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

**ITAL 2600 Intermediate Italian 4 s.h.**

Intensive training in understanding, speaking, reading, and writing Italian; knowledge of geography and daily life as well as appreciation of the cultures of Italian speakers. Assignments in the Language Learning and Resource Center (LLRC).

**Prereq.:** Placement test or ITAL 1550.

**ITAL 2605 Advanced Intermediate Italian 4 s.h.**

Intensive training in understanding, speaking, reading and writing Italian; knowledge of geography and daily life as well as appreciation of the cultures of Italian speakers.

**Prereq.:** Placement test or ITAL 2600.

**ITAL 2610 Introduction to Italian Film 1 s.h.**

Analysis, written and oral, of Italian films presented in conjunction with FNLG 2610. Corequisite FNLG 2610.

**Prereq.:** ITAL 2600.

**ITAL 3701 Service Learning in Italian 1-2 s.h.**

Using the Italian language to engage in community service or an internship. Completion of a journal written in Italian and detailing the experience is required. May be repeated up to 4 s.h.

**Prereq.:** Approval of Department Chair; and ITAL 2600 or placement test.



**ITAL 3702 Intensive Italian Review 4 s.h.**

Intensive training in understanding, speaking, reading, and writing Italian. Grammatical structures and vocabulary in context.  
**Prereq.:** ITAL 2605.

**ITAL 3724 Italian Linguistics and Phonetics 4 s.h.**

Examination of basic concepts and issues of modern Italian linguistic theory in the areas of phonology, morphology, syntax and pragmatics. Special emphasis is placed on sociolinguistics and on theory and practice in Italian phonetics aimed at improving the pronunciation and intonation of second language learners. Regular in-class discussion and occasional in-class writing assignments, all in Italian.  
**Prereq.:** ITAL 3702, or ITAL 2605.

**ITAL 3735 Italian Civilization and Culture 4 s.h.**

A condensed study of the geography, history, literature and social heritage of Italy, from the fall of the Roman Empire to the present. Regular in-class discussion and occasional in-class writing assignments, all in Italian.  
**Prereq.:** ITAL 3702 or ITAL 2605.

**ITAL 3740 Survey of Italian Literature 1 4 s.h.**

Introduction to Italian literature from the 14th Century to the Renaissance through representative selections of key literary figures. Theoretical and critical approaches to help interpret texts. Regular in-class discussion and occasional in-class writing assignments, all in Italian.  
**Prereq.:** ITAL 3702 or ITAL 2605.

**ITAL 3741 Survey of Italian Literature 2 4 s.h.**

Introduction to Italian literature from the Enlightenment to the present through representative selections of key literary figures. Theoretical and critical approaches to help interpret texts. Regular in-class discussion and occasional in-class writing assignments, all in Italian.  
**Prereq.:** ITAL 3702 or ITAL 2605.

**ITAL 3750 Contemporary Italian Literature 4 s.h.**

A study of contemporary Italian literature and its movements and innovations across a variety of genres, including fiction, memoir, poetry, song lyrics, rap and journalism. Featuring the works of Ammaniti, Baricco, Benni, Consoli, Khouma, Mazzucco, Severgnini and Virzl. Regular in-class discussion and occasional in-class writing assignments, all in Italian.  
**Prereq.:** ITAL 3702 or ITAL 2605.

**ITAL 3760 Literary Representations of 19th Century Italy 4 s.h.**

A study of literary representations of 19th century Italy and the Italians from the pre-Risorgimento era through the turn of the century, with concentration on the works of Foscolo, Manzoni, Verga and di Lampadusa. Regular in-class discussion and occasional in-class writing assignments, all in Italian.  
**Prereq.:** ITAL 3702 or ITAL 2605.

**ITAL 3780 Italian Composition and Conversation Review 3 s.h.**

Review course emphasizing impromptu conversations and in-class essay writing. Intended for students who need additional coursework to achieve the level of Advanced Low on the ACTFL Oral Proficiency Interview and/or the ACTFL Writing Proficiency Test. May not be counted toward the major. Grading CR/NC.

**Prereq.:** 16 s.h. in Italian at the 3700 level or above and permission of Chair.

**ITAL 3798 Study Abroad in Sicily 4 s.h.**

A structured but individualized program of study at the Culturforum Italian Language School in Cefalu, Sicily.  
**Prereq.:** either ITAL 3702 or both ITAL 2605 and permission of Chair.

**ITAL 3799 Study Abroad in Italian 1-15 s.h.**

An individually-arranged program of foreign study in the Italian language. Programs can be of two general types: (1) trips or residential programs sponsored by consortial universities, and (2) independent academic coursework through institutions with which YSU does not have a consortial agreement. A written statement detailing the student's academic plan must be approved by a member of the Italian faculty, the chair of Foreign Languages and the dean of CLASS prior to the trip. Credit toward fulfillment of requirements for the Italian major will be determined by the chair of Foreign Languages and the Italian faculty. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

**Prereq.:** Sophomore status and approval of the chair of Foreign Languages.

**ITAL 4880 Italian Conversation and Composition Capstone 4 s.h.**

Capstone course emphasizing impromptu conversations and in-class essay writing. Students must achieve a level of Advanced Low on both the ACTFL Oral Proficiency Interview and the ACTFL Writing Proficiency Test.

**Prereq.:** 16 s.h. in Italian at the 3700 level or above and permission of Chair.  
**Gen Ed:** Capstone.

**ITAL 4881 Italian Composition and Conversation Capstone 4 s.h.**

Capstone course emphasizing impromptu conversations and in-class essay writing. Students must achieve a level of Intermediate High on both the ACTFL Oral Proficiency Interview and the ACTFL Writing Proficiency Test.

**Prereq.:** 16 s.h. in Italian at the 3700 level or above and permission of Chair.

## Latin

**LATN 1550 Elementary Latin 4 s.h.**

Introduction to Latin, with emphasis on those aspects of grammar most essential for developing the ability to read Latin. Translation of simple Latin texts into English. Introduction to the culture of the late Roman Republic, including reading selected primary sources in English. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

**LATN 2600 Intermediate Latin 4 s.h.**

Continuation of Latin 1550 with emphasis on more complex aspects of Latin grammar. Translation of more advanced Latin texts, including some authentic passages.

**Prereq.:** Placement test or LATN 1550.

**LATN 2603 Directed Reading in Latin 1 3 s.h.**

Reading of selections from a Latin author or genre with emphasis on translation. Review of Latin grammar and introduction of some advanced grammatical constructions not covered in Latin 1550 or LATN 2600. May be repeated once if topic is different.

**Prereq.:** Placement test or LATN 2600.

**LATN 3753 Directed Reading in Latin 2 3 s.h.**

Reading of selections from a Latin author or genre with emphasis on translation and interpretation of text. Review of Latin grammar, introduction to relevant modern scholarship, and writing of evaluative essays. May be repeated once if topic is different.

**Prereq.:** LATN 2603 and permission of Chair.

**LATN 4883 Directed Reading in Latin 3 3 s.h.**

Reading of selections from a Latin author or genre with emphasis on translation and interpretation of text, review of Latin grammar, and writing of a research paper. May be repeated once if topic is different.

**Prereq.:** LATN 3753 and permission of Chair.

## Spanish

**SPAN 1550 Elementary Spanish 4 s.h.**

Intensive training in understanding, speaking, reading, and writing Spanish. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

**SPAN 2600 Intermediate Spanish 4 s.h.**

Intensive training in understanding, speaking, reading, and writing Spanish; geography and daily life, as well as appreciation of the cultures of Spanish speakers are studied. Assignments in the Language Learning and Resource Center (LLRC).

**Prereq.:** Placement test or SPAN 1550.

**SPAN 2605 Advanced Intermediate Spanish 3 s.h.**

Review and expansion of basic Spanish language skills and cultural information. Assignments in the Language Learning and Resource Center (LLRC).

**Prereq.:** Placement test or SPAN 2600.

**SPAN 3701 Service Learning in Spanish 1-2 s.h.**

Using the Spanish language to engage in community service or an internship. Completion of a journal written in Spanish and detailing the experience is required. May be repeated up to 4 s.h.

**Prereq.:** Approval of Department Chair; and SPAN 2600 or placement test.

**SPAN 3702 Intensive Spanish Review 3 s.h.**

Further study of the Spanish language and Hispanic cultures through oral, written, and reading activities. Focus is on contextualized vocabulary and review of grammar to help students move towards a more advanced level.

**Prereq.:** SPAN 2605.

**SPAN 3724 Spanish Pronunciation 3 s.h.**

Theory and practice of Spanish pronunciation. Description of production of Spanish speech sounds and general characteristics of Spanish pronunciation. Topics on intonation. Audio-lingual practice in class and in language laboratory.

**Prereq.:** SPAN 3702.

**SPAN 3735 Advanced Spanish Grammar and Composition 3 s.h.**

A systematic study of Spanish morphology, sentence structure, and usage applied to a variety of written discourse styles such as description, narration, and exposition. Discussion of contrasts with English discourse styles, and effective grammatical use.

**Prereq.:** SPAN 3702.

**SPAN 3736 Introduction to Spanish Linguistics 3 s.h.**

Examines some of the basic concepts and issues of modern Spanish linguistics theory in the areas of phonology, morphology, syntax and pragmatics, with special emphasis on sociolinguistics.

**Prereq.:** SPAN 3702.

**SPAN 3737 Translation and Composition 3 s.h.**

Study of translation techniques, and practice in translating from Spanish into English and from English into Spanish, working with a variety of texts from the social sciences, natural sciences, and technology. Emphasis on interpretation of vocabulary and idioms.

**Prereq.:** SPAN 3735 or SPAN 3736.

**SPAN 3740 Business Spanish 3 s.h.**

Principles of effective commercial letter and report writing and oral communication in business in the Spanish-speaking world.

**Prereq.:** SPAN 2605.

**SPAN 3755 Advanced Spanish Conversation 3 s.h.**

Development of oral expression through discussion of current topics in the context of worldwide Hispanic culture, politics, and economics. Expansion of vocabulary. Laboratory work according to individual needs.

**Prereq.:** SPAN 3702.

**SPAN 3758 Culture and Literature of Spanish-Speaking Groups in the United States 3 s.h.**

Provides an overview of the significant culture and literature of the diverse Hispanic groups in the U.S. The relationship between literature and society broached through an in-depth discussion of several representative texts and their historical and political background.

**Prereq.:** SPAN 3702.

**SPAN 3762 Culture: Spain 3 s.h.**

Examination of the cultural landscape and major issues in Spanish society through the study of art, history, geography, politics, music, cinema, popular culture, and cultural groups in the various regions of Spain.

**Prereq.:** SPAN 3702.

**SPAN 3763 Introduction to Literature: Spain 3 s.h.**

Introduction to Peninsular literature through representative selections of key works of fiction, poetry and film. Theoretical and critical approaches to help the student interpret texts.

**Prereq.:** SPAN 3702.

**SPAN 3766 Culture: Spanish-America 3 s.h.**

This course examines the cultural landscape and major issues in Spanish-American society through the study of art, history, geography, politics, music, cinema, popular culture, and cultural groups in the various regions.

**Prereq.:** SPAN 3702.

**SPAN 3767 Introduction to Literature: Spanish-America 3 s.h.**

Introduction to Spanish-American literature through representative selections of key works of fiction, poetry and film. Theoretical and critical approaches to help the student interpret texts.

**Prereq.:** SPAN 3702.

**SPAN 3780 Spanish Composition and Conversation Review 3 s.h.**

Review course emphasizing impromptu conversations and in-class essay writing. Intended for students who need additional coursework to achieve the level of Advanced Low on the ACTFL Oral Proficiency Interview and/or ACTFL Writing Proficiency Test. May not be counted toward the major. Grading is CR/NC.

**Prereq.:** 15 s.h. in Spanish at the 3700 level or above and permission of Chair.

**SPAN 3798 Study Abroad in Colombia 4 s.h.**

A structured but individualized program of study at the Universidad del Norte in Barranquilla, Colombia. The course encompasses an orientation prior to the study abroad experience and the study abroad experience itself. A grade will not be given until the student returns from the study abroad.

**Prereq.:** SPAN 3702.

**SPAN 3799 Study Abroad in Spanish 1-15 s.h.**

An individually-arranged program of foreign study in the Spanish language. Programs can be of two general types: (1) trips or residential programs sponsored by consorcial universities, and (2) independent academic coursework through institutions with which YSU does not have a consorcial agreement. A written statement detailing the student's academic plan must be approved by a member of the Spanish faculty, the chair of Foreign Languages and the dean of CLASS prior to the trip. Credit toward fulfillment of requirements for the Spanish major will be determined by the chair of Foreign Languages and the Spanish faculty. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

**Prereq.:** Sophomore status and approval of the chair of Foreign Languages.

**SPAN 4880 Spanish Conversation and Composition Capstone 3 s.h.**

Capstone course emphasizing impromptu conversation and in-class essay writing. Student must achieve a level of Advanced Low on both the ACTFL Oral Proficiency Interview and the ACTFL Writing Proficiency Test.

**Prereq.:** 15 s.h. in Spanish at the 3700 level or above and permission of Chair.

**SPAN 4881 Spanish Composition and Conversation Capstone 3 s.h.**

Capstone course emphasizing impromptu conversations and in-class essay writing. Students must achieve a level of Intermediate High on both the ACTFL Oral Proficiency Interview and the ACTFL Writing Proficiency Test.

**Prereq.:** 15 s.h. in Spanish at the 3700 level or above and permission of Chair.

**SPAN 5855 Topics in Spanish Language and Linguistics 3 s.h.**

An introduction to the terminology, concepts, bibliography and current issues in Spanish language and linguistics. Major topics include phonology, morphology, semantics, syntax, applied linguistics, transformational grammar, and other topics related to language variation and society. May be repeated once when topic varies.

**Prereq.:** Any 3700-level SPAN course.

**SPAN 5870 Topics in Spanish Literature: Spain 3 s.h.**

Study of an author, a genre, or a movement in Spanish literature from 1492 to the present. The topic will be announced each time the course is offered. May be taken three times if content is not repeated.

**Prereq.:** SPAN 3762 or SPAN 3763.

**SPAN 5885 Topics in Hispanic Literature and Film 3 s.h.**

Examines the relationship between the Hispanic narrative discourse and cinema, including film adaptations of literary works. Modern social and cultural issues, as well as Hispanic self-images. May be taken three times if content is not repeated.

**Prereq.:** one of SPAN 3762, SPAN 3763, SPAN 3766, SPAN 3767.

**Gen Ed:** Capstone.

**SPAN 5890 Topics in Spanish Literature: Spanish-America 3 s.h.**

Study of an author, a genre, or a movement in Latin America from 1492 to the present. The topic will be announced each time the course is offered. May be taken three times if content is not repeated.

**Prereq.:** SPAN 3766 or SPAN 3767.

**Gen Ed:** Capstone.

## Bachelor of Arts in Italian

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Natural Sciences		6
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
<b>Major Requirements</b>		
ITAL 2605	Advanced Intermediate Italian	4
ITAL 3702	Intensive Italian Review	4
ITAL 4880	Italian Conversation and Composition Capstone <sup>1</sup>	4
Five of the following:		20
ITAL 3724	Italian Linguistics and Phonetics	
ITAL 3735	Italian Civilization and Culture	
ITAL 3740	Survey of Italian Literature 1	
ITAL 3741	Survey of Italian Literature 2	
ITAL 3750	Contemporary Italian Literature	
ITAL 3760	Literary Representations of 19th Century Italy	
ITAL 3798	Study Abroad in Sicily	
<b>Total Semester Hours</b>		<b>71</b>

<sup>1</sup> In order to complete ITAL 4880 Italian Conversation and Composition Capstone, the student must achieve the level of Advanced Low on the ACTFL Oral Proficiency Interview and Writing Proficiency Test.

## Study Abroad in Sicily

In May and June of even-numbered years, students who have completed ITAL 3702 Intensive Italian Review may enroll in ITAL 3798 Study Abroad in Sicily. During this program, students live in Cefalù, Sicily, and take classes at the CulturForum Italian Language School. The program includes numerous excursions to other noteworthy places in Sicily, and there is an option to register for an additional two semester hours of ITAL 3799 Study Abroad in Italian, which involves two weeks of travel and study, mostly in northern Italy (e.g., Milan, Ravenna, Rimini, Modena). For more information, see the program brochure (<http://catalog.ySU.edu/undergraduate/colleges-programs/college->

[liberal-arts-social-sciences/departments-foreign-languages-literatures/bachelor-of-arts-in-italian/YSU\\_in\\_Cefalu.pdf](http://catalog.ySU.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences/departments-foreign-languages-literatures/bachelor-of-arts-in-italian/YSU_in_Cefalu.pdf)).

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ITAL 1550	Elementary Italian	4
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
or PHIL 2619	or Introduction to Logic	
or STAT 2601	or Introductory Statistics	
Natural Science GER		3
First-Year Experience Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ITAL 2600	Intermediate Italian	4
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Social and Personal Awareness GER		3
Arts and Humanities GER		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
ITAL 2605	Advanced Intermediate Italian	4
Natural Science with Lab GER		4
Social and Personal Awareness GER		3
Minor course		3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
ITAL 3702	Intensive Italian Review	4
ITAL 3798	Study Abroad in Sicily (if an even year)	0-4
Social Science GER		3
Arts and Humanities GER		3
Minor course		3
<b>Semester Hours</b>		<b>13-17</b>
<b>Year 3</b>		
<b>Fall</b>		
ITAL 3700-level course <sup>1</sup>		4
Social Science GER		3
Minor 2600/3700-level course		3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ITAL 3700-level course <sup>1</sup>		4
ITAL 3798	Study Abroad in Sicily (if an even year)	4-0
Minor 2600/3700-level course		3
Elective 3700/4800-level		3
Elective 3700/4800-level		3
<b>Semester Hours</b>		<b>17-13</b>
<b>Year 4</b>		
<b>Fall</b>		
ITAL 3700-level course <sup>1</sup>		4
Minor 3700/4800-level course		3
Elective 3700/4800-level		3
Elective 3700/4800-level		3
ITAL 3701	Service Learning in Italian	1

or HPES activity class		
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
ITAL 3700-level course <sup>1</sup>		4
Minor 3700/4800-level course		3
ITAL 4880 Italian Conversation and Composition Capstone		4
Elective 3700/4800-level		3
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>120</b>

<sup>1</sup> Each semester one or two of the following courses are offered: ITAL 3724, ITAL 3735, ITAL 3740, ITAL 3741, ITAL 3750, ITAL 3760, ITAL 3798.

## Learning Outcomes

The department's learning outcomes for foreign language majors are as follows:

### CULTURAL UNDERSTANDING

The student will develop an understanding and appreciation of the history and culture of those areas in which the target language is spoken.

### READING COMPREHENSION

The student will be able to read and understand a variety of materials written in the target language. These materials may include but are not limited to: novels, plays, poetry, newspaper and magazine articles, and private correspondence (e.g., business communications).

### LISTENING COMPREHENSION

The student will be able to understand the target language when spoken in a variety of contexts. These contexts may include but are not limited to: conversation with another individual or individuals, formal lectures, song, and film.

### ORAL EXPRESSION

The student will be able to carry on a conversation and deliver a speech in the target language. The student will achieve a level of Advanced Low on the Oral Proficiency Interview administered by the American Council on the Teaching of Foreign Languages.

### WRITTEN EXPRESSION

The student will be able to compose in the target language a variety of written documents. These documents may include but are not limited to: formal and casual correspondence, essays, and creative works. The student will achieve a level of Advanced Low on the Writing Proficiency Test administered by the American Council on the Teaching of Foreign Languages.

## Bachelor of Arts in Spanish

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
<b>Mathematics Requirement</b>		
Arts and Humanities		6
Natural Sciences		6
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3

<b>Major Requirements</b>		
SPAN 2605	Advanced Intermediate Spanish	3
SPAN 3702	Intensive Spanish Review	3
SPAN 3735	Advanced Spanish Grammar and Composition	3
SPAN 3755	Advanced Spanish Conversation	3
SPAN 4880	Spanish Conversation and Composition Capstone <sup>1</sup>	3
Six of the following:		18-19
SPAN 3724	Spanish Pronunciation	
SPAN 3736	Introduction to Spanish Linguistics	
SPAN 3740	Business Spanish	
SPAN 3758	Culture and Literature of Spanish-Speaking Groups in the United States	
SPAN 3762	Culture: Spain	
SPAN 3763	Introduction to Literature: Spain	
SPAN 3766	Culture: Spanish-America	
SPAN 3767	Introduction to Literature: Spanish-America	
SPAN 3798	Study Abroad in Colombia (4 semester hours)	
<b>Total Semester Hours</b>		<b>72-73</b>

<sup>1</sup> In order to complete SPAN 4880 Spanish Conversation and Composition Capstone, the student must achieve the level of Advanced Low on the ACTFL Oral Proficiency Interview and Writing Proficiency Test.

## Study Abroad in Colombia

In May and June of odd-numbered years, students who have completed SPAN 3702 Intensive Spanish Review may enroll in SPAN 3798 Study Abroad in Colombia. During this program, students live in Barranquilla, Colombia, and study Spanish at the Universidad del Norte. Contact the Department of Foreign Languages for additional information.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
SPAN 1550	Elementary Spanish	4
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
or PHIL 2619	or Introduction to Logic	
or STAT 2601	or Introductory Statistics	
Social and Personal Awareness GER		3
First-Year Experience Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
SPAN 2600	Intermediate Spanish	4
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Arts and Humanities GER		3
Natural Science GER		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
SPAN 2605	Advanced Intermediate Spanish	3
Social Science GER		3
Social and Personal Awareness GER		3
Arts and Humanities GER		3
Minor course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
SPAN 3702	Intensive Spanish Review	3

Natural Science with Lab GER	4
Social Science GER	3
Minor course	3
SPAN 3798 Study Abroad in Colombia (if odd-numbered year) or elective (3 semester hours)	3-4

**Semester Hours** 16-17

**Year 3****Fall**

SPAN 3700-level course <sup>1</sup>	3
SPAN 3700-level course <sup>1</sup>	3
Minor 2600/3700-level course	3
Elective	3
Elective 3700/4800-level	3

**Semester Hours** 15

**Spring**

SPAN 3700-level course <sup>1</sup>	3
SPAN 3700-level course <sup>1</sup>	3
Minor 2600/3700-level course	3
Elective 3700/4800-level	3
SPAN 3798 Study Abroad in Colombia (if odd-numbered year) or elective (3 semester hours)	4-3

**Semester Hours** 16-15

**Year 4****Fall**

SPAN 3700-level course <sup>1</sup>	3
SPAN 3700-level course <sup>1</sup>	3
Minor 3700/4800-level course	3
Elective 3700/4800-level	3
SPAN 3701 Service Learning in Spanish ( or Elective 3700/4800 level)	2-3

**Semester Hours** 14-15

**Spring**

SPAN 3700-level course <sup>1</sup>	3
SPAN 3700-level course <sup>1</sup>	3
SPAN 4880 Spanish Conversation and Composition Capstone	3
Minor 3700/4800-level course	3

**Semester Hours** 12

**Total Semester Hours** 120-121

<sup>1</sup> Each semester at least two of the following courses will be offered: SPAN 3724, SPAN 3735, SPAN 3736, SPAN 3740, SPAN 3755, SPAN 3758, SPAN 3762, SPAN 3763, SPAN 3766, SPAN 3767, SPAN 3798.

## Learning Outcomes

The department's learning outcomes for foreign language majors are as follows:

### CULTURAL UNDERSTANDING

The student will develop an understanding and appreciation of the history and culture of those areas in which the target language is spoken.

### READING COMPREHENSION

The student will be able to read and understand a variety of materials written in the target language. These materials may include but are not limited

to: novels, plays, poetry, newspaper and magazine articles, and private correspondence (e.g., business communications).

### LISTENING COMPREHENSION

The student will be able to understand the target language when spoken in a variety of contexts. These contexts may include but are not limited to: conversation with another individual or individuals, formal lectures, song, and film.

### ORAL EXPRESSION

The student will be able to carry on a conversation and deliver a speech in the target language. The student will achieve a level of Advanced Low on the Oral Proficiency Interview administered by the American Council on the Teaching of Foreign Languages.

### WRITTEN EXPRESSION

The student will be able to compose in the target language a variety of written documents. These documents may include but are not limited to: formal and casual correspondence, essays, and creative works. The student will achieve a level of Advanced Low on the Writing Proficiency Test administered by the American Council on the Teaching of Foreign Languages.

## Minor in French

COURSE	TITLE	S.H.
<b>Required Courses</b>		
FRNC 2600	Intermediate French	4
FRNC 2605	Advanced Intermediate French	3
FRNC 2606	Intensive French Review	3
Select an additional 8-9 hours of French (FRNC) courses at the 3700 level.		8-9
<b>Total Semester Hours</b>		<b>18-19</b>

## Credit by Examination for FRNC 2600 Intermediate French

A student who places into FRNC 2605 Advanced Intermediate French and successfully completes that course or who has received credit by examination for it (e.g., AP or CLEP) may apply for credit by examination for FRNC 2600 Intermediate French, thereby expediting the attainment of a French minor.

## Minor in Greek Studies

COURSE	TITLE	S.H.
<b>Required Courses</b>		
GRK 2600	Intermediate Ancient Greek	4
GRK 2603	Directed Reading in Ancient Greek 1 (may be repeated with different content)	3-6
GRK 3753	Directed Reading in Ancient Greek 2 (may be repeated with different content)	6-3
GRK 4883	Directed Reading in Ancient Greek 3 (may be repeated with different content)	6-3
One of the following courses may be substituted for a Greek language course:		0-4
FNLG 2660	Women in the Ancient World (3 semester hours)	
HIST 3752	Ancient History 1 (3 semester hours)	
LATN 1550	Elementary Latin (4 semester hours)	
<b>Total Semester Hours</b>		<b>19-20</b>

## Minor in Italian

COURSE	TITLE	S.H.
<b>Required Courses</b>		
ITAL 2600	Intermediate Italian	4
ITAL 2605	Advanced Intermediate Italian	4
ITAL 3702	Intensive Italian Review	4
Select an additional 6-8 hours of Italian (ITAL) courses at the 3700 level		6-8
<b>Total Semester Hours</b>		<b>18-20</b>

### Credit by Examination for ITAL 2600 Intermediate Italian

A student who places into ITAL 2605 Advanced Intermediate Italian and successfully completes that course may apply for credit by examination for ITAL 2600 Intermediate Italian, thereby expediting the attainment of the Italian minor.

### Study Abroad in Sicily

A student who completes ITAL 3702 Intensive Italian Review may complete the Minor by taking ITAL 3798 Study Abroad in Sicily and adding two additional credits of ITAL 3799 Study Abroad in Italian. For additional information see the BA in Italian (p. 306).

## Minor in Latin

COURSE	TITLE	S.H.
<b>Required Courses</b>		
LATN 2600	Intermediate Latin	4
LATN 2603	Directed Reading in Latin 1	3-6
(may be repeated with different content)		
LATN 3753	Directed Reading in Latin 2	6-3
(may be repeated with different content)		
LATN 4883	Directed Reading in Latin 3	6-3
(may be repeated with different content)		
One of the following courses may be substituted for a Latin language course:		0-4
FNLG 2660	Women in the Ancient World (3 semester hours)	
HIST 3753	Ancient History 2 (3 semester hours)	
GRK 1550	Elementary Ancient Greek (4 semester hours)	
<b>Total Semester Hours</b>		<b>19-20</b>

## Minor in Spanish

COURSE	TITLE	S.H.
<b>Required Courses</b>		
SPAN 2600	Intermediate Spanish	4
SPAN 2605	Advanced Intermediate Spanish	3
SPAN 3702	Intensive Spanish Review	3
Select an additional 8-9 hours of Spanish (SPAN) courses at the 3700 level.		8-9
<b>Total Semester Hours</b>		<b>18-19</b>

### Credit by Examination for SPAN 2600 Intermediate Spanish

A student who places into SPAN 2605 Advanced Intermediate Spanish and successfully completes that course may apply for credit by examination for

SPAN 2600 Intermediate Spanish, thereby expediting the attainment of a Spanish minor.

### Study Abroad in Colombia

A student who completes SPAN 3702 Intensive Spanish Review may then take SPAN 3798 Study Abroad in Colombia. For additional information see the BA in Spanish (p. 307).

## Certificate in French

COURSE	TITLE	S.H.
FRNC 2600	Intermediate French	4
FRNC 2605	Advanced Intermediate French	3
FRNC 2606	Intensive French Review	3
FRNC 3799	Study Abroad in French	1-15

### Credit by Examination for FRNC 2600 Intermediate French

A student who places into FRNC 2605 Advanced Intermediate French and successfully completes that course or who has received credit by examination for it (e.g., AP or CLEP) may apply for credit by examination for FRNC 2600 Intermediate French, thereby expediting the attainment of a French certificate.

## Learning Outcomes

### Cultural Understanding

S.H. The student will start to develop an understanding and appreciation of the history and culture of those areas in which the target language is spoken. Attainment of this outcome will be facilitated by the mandated study abroad.

### Reading Comprehension

The student will be able to read and understand a variety of straightforward materials written in the target language. These materials may include but are not limited to: signs, menus, schedules, poetry, newspaper and magazine articles, and private correspondence (e.g., business communications).

### Listening Comprehension

The student will be able to understand the target language when spoken in a variety of contexts. These contexts may include but are not limited to: conversation with another individual or individuals, songs, and films.

### Oral Expression

The student will be able to carry on a rudimentary conversation and deliver a short speech in the target language. The student's discourse will be comprehensible to a native speaker of the language accustomed to dealing with non-native speakers.

### Written Expression

The student will be able to compose in the target language a variety of straightforward written documents. These documents may include but are not limited to: formal and casual correspondence, short essays, summaries, and notes. The student's writing will be comprehensible to a native speaker of the language accustomed to dealing with non-native speakers.

## Certificate in Italian

COURSE	TITLE	S.H.
ITAL 2600	Intermediate Italian	4
ITAL 2605	Advanced Intermediate Italian	4

ITAL 3702	Intensive Italian Review	4	SPAN 2600 Intermediate Spanish, thereby expediting the attainment of a Spanish certificate.
ITAL 3798	Study Abroad in Sicily	4	

## Credit by Examination for ITAL 2600 Intermediate Italian

A student who places into ITAL 2605 Advanced Intermediate Italian and successfully completes that course may apply for credit by examination for ITAL 2600 Intermediate Italian, thereby expediting the attainment of the Italian certificate.

## Study Abroad in Sicily

A student who completes ITAL 3702 Intensive Italian Review may complete the Minor by taking ITAL 3798 Study Abroad in Sicily and adding two additional credits of ITAL 3799 Study Abroad in Italian. For additional information see the BA in Italian (p. 306).

## Learning Outcomes

### Cultural Understanding

The student will start to develop an understanding and appreciation of the history and culture of those areas in which the target language is spoken. Attainment of this outcome will be facilitated by the mandated study abroad.

### Reading Comprehension

The student will be able to read and understand a variety of straightforward materials written in the target language. These materials may include but are not limited to: signs, menus, schedules, poetry, newspaper and magazine articles, and private correspondence (e.g., business communications).

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The student will be able to understand the target language when spoken in a variety of contexts. These contexts may include but are not limited to: conversation with another individual or individuals, , songs, and films.

### Oral Expression

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## Certificate in Spanish

COURSE	TITLE	S.H.
SPAN 2600	Intermediate Spanish	4
SPAN 2605	Advanced Intermediate Spanish	3
SPAN 3702	Intensive Spanish Review	3
SPAN 3798	Study Abroad in Colombia	4

## Credit by Examination for SPAN 2600 Intermediate Spanish

A student who places into SPAN 2605 Advanced Intermediate Spanish and successfully completes that course may apply for credit by examination for

## Study Abroad in Colombia

A student who completes SPAN 3702 Intensive Spanish Review may then take SPAN 3798 Study Abroad in Colombia. For additional information see the BA in Spanish (p. 307).

## Learning Outcomes

### Cultural Understanding

The student will start to develop an understanding and appreciation of the history and culture of those areas in which the target language is spoken. Attainment of this outcome will be facilitated by the mandated study abroad.

### Reading Comprehension

The student will be able to read and understand a variety of straightforward materials written in the target language. These materials may include but are not limited to: signs, menus, schedules, poetry, newspaper and magazine articles, and private correspondence (e.g., business communications).

### Listening Comprehension

The student will be able to understand the target language when spoken in a variety of contexts. These contexts may include but are not limited to: conversation with another individual or individuals, , songs, and films.

### Oral Expression

The student will be able to carry on a rudimentary conversation and deliver a short speech in the target language. The student's discourse will be comprehensible to a native speaker of the language accustomed to dealing with non-native speakers.

### Written Expression

The student will be able to compose in the target language a variety of straightforward written documents. These documents may include but are not limited to: formal and casual correspondence, short essays, summaries, and notes. The student's writing will be comprehensible to a native speaker of the language accustomed to dealing with non-native speakers.

## Bachelor of General Studies in General Studies

For more information, visit the Bachelor of General Studies (<http://www.yсу.edu/academics/college-liberal-arts-social-sciences/general-studies-major>) webpage.

The Bachelor of General Studies degree (BGS) is a degree-completion option for students who have completed significant coursework but not the requirements for a specific major. Through careful evaluation of coursework already completed at YSU or other colleges and universities, a degree completion plan is constructed for each student. The BGS may also be appropriate for students for whom a general bachelor's degree may lead to career advancement or for those students who seek the personal satisfaction of having completed a bachelor's degree.

Individuals who have a bachelor's degree are not eligible for the BGS degree, and the BGS degree may not be earned concurrently with another bachelor's degree.

All BGS students complete the requirements of the General Education curriculum (old or new). As such, the goals of the general education curriculum are met by BGS students. They are as follows:

- Write and speak effectively
- Acquire, process, and present quantitative and qualitative information using the most appropriate technologies, including computers
- Reason critically, both individually and collaboratively; draw sound conclusions from information, ideas, and interpretations gathered from various sources and disciplines; and apply those conclusions to one's life and society

The specific requirements for the completion of the Bachelor of General Studies (B.G.S.) degree are as follows:

*A 48-semester-hour concentration with at least 24 s.h. of upper-division credit comprised of:*

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Natural Sciences		6
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
<b>Major Requirements</b>		
Two focus areas consisting of 18-24 s.h. each <sup>1</sup>		36-48
Support courses		0-12
An approved capstone course		1-3
Completion of a Cultural/Diversity Requirement (Students are required to complete two classes from an approved list.)		6
Elective Hours		38
Total Hours Required for Degree: 120 s.h.		

<sup>1</sup> Focus-area requirements are submitted by the departments offering the course work in the focus area and are approved by the director of General Studies in coordination with the General Studies Committee.

## Learning Outcomes

All BGS students complete the requirements of the General Education curriculum (old or new). As such, the goals of the general education curriculum are met by BGS students. They are as follows:

- Write and speak effectively
- Acquire, process, and present quantitative and qualitative information using the most appropriate technologies, including computers
- Reason critically, both individually and collaboratively; draw sound conclusions from information, ideas, and interpretations gathered from various sources and disciplines; and apply those conclusions to one's life and society

In addition BGS students are expected complete requirements specific to the program. They are as follows:

- Demonstrate preparedness for and the behaviors indicative of professionalism in the work environment
- Analyze and synthesize a variety of texts
- Produce capstone level research work

Appreciate importance and value of an interdisciplinary degree

## Department of Geography Introduction

Students majoring in Geography earn the Bachelor of Arts degree, which may be taken in one of two tracks: Geography BA and Geography BA-GIScience/Remote Sensing Track. In addition to completing the University and CLASS requirements, a student majoring in Geography must complete a minimum of 33 semester hours in Geography. The GIScience/Remote Sensing Track requires an additional nine semester hours of support courses. At least 21 semester hours must be earned in upper-division Geography courses. Grades for courses required in the major must be a minimum of "C" or higher. The B.A. degree requires both a minor of at least 18 s.h. and a foreign language through the 2600-level course. This degree may be earned in eight semesters if students average 15 hours per semester.

## Welcome from the Chair

Welcome! We invite to you to explore the exciting and evolving field of geography! We offer a diverse curriculum that fits the interests and needs of students who have a broad outlook on life. Geography offers an alternative that can be employed for the pursuit of many unique and different career paths. We also provide extensive training in the fast growing field of Geographic Information Science. This technology is being employed in virtually every public and private sector of the economy. Our graduates are employed in environmental and urban planning agencies. They serve in areas that focus on ensuring the security interests of the United States. They have been admitted to graduate programs throughout the United States. Please contact me if you have any questions about the field of geography and how it can apply to your long-term career interests.

Ron Shaklee, Ph.D.

Professor and Chair

## Contact Information

Ron Shaklee, Department Chair - rshaklee@ysu.edu - (330) 941-3319

Marilyn Handel, Administrative Assistant - mkhandel@ysu.edu - (330) 941-3317

### 124 Phelps Building

(330) 941-3317

## Advising

All majors should meet with an advisor each semester prior to registering for their classes. Course selection is a critical part of finishing your degree in a timely manner.

Students pursuing a BA in Geography through the College of Liberal Arts and Social Sciences are advised by the Chair of the Department of Geography or by any appropriate member of the department faculty whose academic expertise coincides with the interests of the student. Call (330) 941-3317 to set up an appointment to meet with the chair. Geography majors who need to submit repetition forms, study abroad forms, and transient forms or who need to request a graduation evaluation should contact the CLASS Division of Academic Advising at (330) 941-3413 (visit the CLASS Advising website (<http://www.ysu.edu/academics/college-liberal-arts-social-sciences/class-advisement>)).

## Geography Minors

Five minors in Geography are offered:

- General Geography
- Geographic Information Science
- Environmental Geography



- Human Geography
- Regional Geography

Each requires 18 s.h. of courses with at least one-third of the credit earned at the upper-division level.

#### Chair

**Ronald V. Shaklee**, Ph.D., Professor, Chair

#### Professor

**William R. Buckler**, Ph.D., Associate Professor

**Craig S. Campbell**, Ph.D., Professor

**Dawna Lynn Cerney**, Ph.D., Associate Professor

**Peter Kimosop**, Ph.D., Assistant Professor

**Bradley A. Shellito**, Ph.D., Professor

## Majors

- BA in Geography (p. 314)
- BA in Geography GIS/Remote Sensing Track (p. 316)
- Spatial Information Systems (SIS) Individualized Curriculum Program (ICP) (p. 318)

## Minors

- General Geography (p. 320)
- Environmental Geography (p. 320)
- Geographic Information Systems (p. 319)
- Human Geography (p. 320)
- Regional Geography (p. 320)

## Certificates

- Geographic Information Science and Technology (p. 318)

### **GEOG 1503 Physical Geography 3 s.h.**

An introductory analysis of selected elements of the natural habitat and their geographic distribution. Includes processes involved in weather, climates, soils, vegetation, and landforms.

**Gen Ed:** Natural Science.

### **GEOG 1503H Honors Physical Geography 3 s.h.**

An introductory analysis of selected elements of the natural habitat and their geographic distribution. Includes processes involved in weather, climates, soils, vegetation, and landforms.

**Gen Ed:** Natural Science.

### **GEOG 1503L Physical Geography Laboratory 1 s.h.**

Observation, collection and analysis of data pertaining to the Earth's weather and climate, surface landforms, drainage systems, soils, vegetation and changing global environmental conditions. In-class labs, local field excursions, and web-based assignments enable students to investigate these phenomena using the scientific method. The class meets two hours each week. Optional lab to accompany GEOG 1503.

**Prereq.:** GEOG 1503 or concurrent with GEOG 1503.

### **GEOG 2610 Map Use and Interpretation 3 s.h.**

The use of maps, aerial photography, and satellite imagery to depict physical and cultural landscapes. Topics include map elements and how to locate, read, and interpret maps and remotely-sensed imagery.

### **GEOG 2611 Geospatial Foundations 3 s.h.**

An overview of geospatial science and technology, including introductory concepts in spatial analysis, Geographic Information Systems, remote sensing, and GPS. The class provides a survey of theoretical geospatial topics as well as their applications in a computer lab setting.

### **GEOG 2626 World Geography 3 s.h.**

A comparative study of representative regions of the world. Attention is focused on an examination of the physical, cultural, social and political attributes of selected regions.

**Gen Ed:** International Perspectives, Social Science, Social and Personal Awareness.

### **GEOG 2626H Honors World Geography 3 s.h.**

A comparative study of representative regions of the world. Attention is focused on an examination of the physical, cultural, social and political attributes of selected regions.

**Gen Ed:** International Perspectives, Social Science, Social and Personal Awareness.

### **GEOG 2630 Weather 3 s.h.**

An examination of basic weather elements, their interrelationships and the natural laws that govern them. Focus is on both global scale atmospheric processes and localized factors that influence weather conditions and patterns.

**Gen Ed:** Natural Science.

### **GEOG 2630H Honors Weather 3 s.h.**

An examination of basic weather elements, their interrelationships and the natural laws that govern them. Focus is on both global scale atmospheric processes and localized factors that influence weather conditions and patterns.

**Gen Ed:** Natural Science.

### **GEOG 2630L Weather Lab 1 s.h.**

Students observe, collect and analyze atmospheric data, and determine and predict weather conditions. Atmospheric laws and meteorological principles, concepts, and processes are investigated using the scientific method. Weekly investigations are undertaken in this hybrid lab encompassing in-class and online instructions. The class meets in person as needed for guidance. Optional lab to accompany GEOG 2630: Weather.

**Prereq.:** GEOG 2630 or concurrently with GEOG 2630.

### **GEOG 2640 Human Geography 3 s.h.**

An examination of the place to place variation in people's utilization of the earth. Topics include the distribution of people, spatial variations in culture, urbanization and politicization of space.

**Gen Ed:** International Perspectives, Social Science, Social and Personal Awareness.

### **GEOG 2640H Honors Human Geography 3 s.h.**

An examination of the place to place variation in people's utilization of the earth. Topics include the distribution of people, spatial variations in culture, urbanization and politicization of space.

**Gen Ed:** International Perspectives, Social Science, Social and Personal Awareness.

### **GEOG 2650 Global Economic Landscapes 3 s.h.**

Geographic patterns of economic activities such as agriculture, manufacturing, retailing and services, and regional patterns and issues in the emerging global economy.

**Gen Ed:** International Perspectives, Social Science, Social and Personal Awareness.

### **GEOG 2650H Honors Global Economic Landscapes 3 s.h.**

Geographic patterns of economic activities such as agriculture, manufacturing, retailing and services, and regional patterns and issues in the emerging global economy.

**Gen Ed:** International Perspectives, Social Science, Social and Personal Awareness.

### **GEOG 3701 Introduction to Geographic Information Science 3 s.h.**

Introduction to the principles of collection, storage, manipulation, retrieval, analysis and visualization of spatial data in a computer environment. Credit will not be given for GEOG 3701 if a student has already received credit for GEOG 5810.

**Prereq.:** GEOG 2611.

**GEOG 3702 Introduction to Remote Sensing 3 s.h.**

Analysis and interpretation of earth features from both airborne and satellite observation platforms. Topics include photogrammetry, digital data manipulation, multispectral imagery analysis, and interpretation of environmental features. Credit will not be given for GEOG 3702 if a student has already received credit for GEOG 5805.

**Prereq.:** GEOG 2611.

**GEOG 3703 Human Impacts on the Environment 3 s.h.**

Focus is on the interaction between natural systems and human activities that results in environmental change and degradation of the Earth's atmosphere, waters, soil, vegetation, and animal life. Societal conflicts, mitigation, conservation, and sustainable resource strategies are discussed.

**Prereq.:** GEOG 1503 or GEOL 1504 or GEOL 1505 or ENST 1500 or ENST 2600 or HIST 3774.

**GEOG 3705 Mountain Geography 3 s.h.**

Investigates the physical, biological, and cultural processes that take place in selected mountain environments. Topics also include resource use, environmental change, and sustainable development at both regional and global scales.

**Prereq.:** BIOL 1505 or ENST 1500 or ENST 2600 or GEOG 1503 or GEOL 1504 or GEOL 1505.

**GEOG 3712 Thematic Map Design and Symbolization 3 s.h.**

An introduction to cartographic design. Emphasis is on composition elements and the construction and perception of point, line, and area map symbols. The use of color, statistical techniques, and animated maps are also explored.

**Prereq.:** GEOG 2610 or GEOG 2611 or GEOG 2626 or GEOG 2640.

**GEOG 3713 Geography of South America 3 s.h.**

Spatial patterns found in the physical and cultural landscapes of South America.

**Prereq.:** GEOG 2626 or GEOG 2640; or HIST 3728.

**GEOG 3715 Geography of Middle America 3 s.h.**

Spatial patterns found in the physical and cultural landscapes of Middle America (Mexico, Central America, and the Caribbean).

**Prereq.:** GEOG 2626 or GEOG 2640; or HIST 3727.

**GEOG 3717 Geography of Europe 3 s.h.**

Spatial patterns found in the physical and cultural landscapes of Europe.

**Prereq.:** GEOG 2626 or GEOG 2640.

**GEOG 3719 Geography of the United States 3 s.h.**

Spatial patterns found in the physical and cultural landscapes of the United States.

**Prereq.:** GEOG 2626 or GEOG 2640; or HIST 2605 or HIST 2606.

**GEOG 3721 Geography of Ohio 3 s.h.**

Spatial patterns found in the physical and cultural landscapes of Ohio.

**Prereq.:** GEOG 2626 or GEOG 2640; or HIST 2605 or HIST 2606 or HIST 3748.

**GEOG 3724 Themes in Cultural Geography 3 s.h.**

A seminar focusing on cultural traditions in geography in the United States. Primary focus is on scholars, traditions, theory and methodology of cultural geography as published in the professional literature.

**Prereq.:** GEOG 2626 or GEOG 2640 or ANTH 1500 or SOC 1500.

**GEOG 3726 Urban Geography 3 s.h.**

A study of the changing spatial patterns associated with the rise of urbanization, comparative urban developments and cities as a part of the urban system.

**Prereq.:** GEOG 2626 or GEOG 2640; or HIST 3736; or SOC 3707.

**GEOG 3730 Global Climates 3 s.h.**

Focus is on the scientific foundations of Earth's climate system; basic understanding of climate behavior, patterns, variability and change; contributions of human activities to climate change; and societal vulnerabilities and responses to climate variability and change.

**Prereq.:** GEOG 1503 or GEOG 2630 or permission of instructor.

**GEOG 3733 Severe and Hazardous Weather 3 s.h.**

Focus is on severe weather that may threaten harm to life and/or property. The scientific underpinning of severe weather types and their geographic distributions, hazards, and mitigation measures. Topics include extratropical cyclones; thunderstorms; lightning; tornadoes; hurricanes; floods; droughts; cold and heat waves; blizzards; snow, ice and wind storms; and El Niño/La Niña.

**Prereq.:** GEOG 1503 or GEOG 2630.

**GEOG 3735 Water in the Earth System 3 s.h.**

Focus is on the cycling of water within the Earth system. Covers the unique properties of water, the global water cycle, the distribution of water within the various reservoirs of the hydrosphere, the role of water in energy transfer and systems interactions, and human impacts on water resources.

**Prereq.:** GEOG 1503 or GEOG 2630; or GEOL 1504 or GEOL 1505 or GEOL 2602; or ENST 1500 or ENST 2600.

**GEOG 3737 Soils and Land Use 3 s.h.**

Examination of soil characteristics influencing land use planning and development. Topics include the basic physical and chemical properties of soil, soil water, the soil-forming factors, the use and interpretation of county soil reports, and soil characteristics beneficial and detrimental to selected land use practices. Participation in field trips is required.

**Prereq.:** GEOG 1503; or GEOL 1504 or GEOL 1505; or ENST 2600; high school chemistry recommended.

**GEOG 3741 Transportation Geography 3 s.h.**

Spatial properties of interregional and intraurban transportation. Topics include network development, movement patterns of people and commodities and the impact of transportation on other activities.

**Prereq.:** GEOG 2626 or GEOG 2640 or GEOG 2650 or GEOG 3745.

**GEOG 3745 The Automobile in American Culture 3 s.h.**

The impact of the automobile on the economic, cultural and environmental landscapes of the United States from a geographic standpoint.

**Prereq.:** GEOG 2640 or GEOG 2650 or GEOG 3741.

**GEOG 3750 Topics in Regional Geography 3 s.h.**

Application of the regional method to selected areas of the world. Topic is announced each time the course is offered. May be repeated three times for credit if content is not repeated. Maximum credit 9 s.h.

**Prereq.:** GEOG 2626 or GEOG 2640.

**GEOG 3775 Field Methods in Geography 3 s.h.**

Practical experiences in geographic data collection. Emphasis on applying techniques of observation, sampling, surveying, interviewing and mapping to both physical and human spatial phenomena. Participation in field trips is mandatory.

**Prereq.:** GEOG 1503 or GEOG 2610 or GEOG 2640.

**GEOG 3780 Medical Geography 3 s.h.**

A geographical and epidemiological approach to disease study. Examines the diffusion and distribution of illnesses and the social and environmental factors contributing to their occurrence. Global disease trends, health care issues and development are explored and compared.

**Prereq.:** GEOG 2626 or GEOG 2640 or ANTH 1500 or BIOL 2602 or SOC 1500.

**GEOG 3781 GIS Applications for the Social Sciences 3 s.h.**

Applications of Geographic Information Science (GIS) techniques for the social sciences in disciplines such as economics, sociology, anthropology, political science, and urban/cultural geography, as distinct from physical or environmental sciences. Focus is on the integration of a spatial perspective in social research, analysis and policy development and how GIS can be useful for collecting and analyzing both qualitative and quantitative data.

**Prereq.:** GEOG 3701 or GEOG 5810.

**GEOG 3782 GIS Applications for the Natural Sciences 3 s.h.**

Applications of Geographic Information Science (GIS) techniques for the natural sciences in disciplines such as physical geography, geology, biology, ecology, natural hazards, environmental monitoring, planning and infrastructure, water resources, climate change, and energy. Topics range from spatial data quality, data conversion, database design, data management, analysis, and visualization.

**Prereq.:** GEOG 3701 or GEOG 5810.

**GEOG 4801 Advanced Geographic Information Science 3 s.h.**

A continuation of Introduction to Geographic Information Science focusing on theory and application of advanced techniques in spatial data handling, GIS modeling, and spatial analysis. Credit will not be given for GEOG 4801 if a student has already received credit for GEOG 5811. 3 s.h.

**Prereq.:** GEOG 3701 or GEOG 5810.

**GEOG 4802 Advanced Remote Sensing 3 s.h.**

A continuation of Introduction to Remote Sensing focusing on advanced theory of image classification, image processing and enhancement, and methods of spatial analysis. Credit will not be given for GEOG 4802 if a student has already received credit for GEOG 5806.

**Prereq.:** GEOG 3702 or GEOG 5805.

**GEOG 4825 Geography Internship 1-3 s.h.**

Practical application of geographic principles and skills in the public or private workplace. A minimum of 40 clock hours per credit hour per semester is required in the work setting. An activities log must be maintained and oral and written reports of the internship experience are required. May be repeated for up to 6 s.h. By permit only.

**Prereq.:** 3 s.h. upper-division geography.

**GEOG 4840 Seminar in Geography 3 s.h.**

Selected aspects of geography not covered in existing courses. Topic to be announced each time the course is offered. May be taken up to two times for credit if topic is not repeated.

**Prereq.:** 9 s.h. of geography.

**GEOG 4890 Geography Capstone 3 s.h.**

Investigation of research topics, methods, and issues in geography. Students select a geographic research topic, collect and analyze data using appropriate methods and present findings in oral and written form.

**Prereq.:** Senior standing in Geography.

**Gen Ed:** Capstone.

**GEOG 5802 Biogeography 3 s.h.**

The distribution and scale of flora and fauna and the factors and processes that produce these patterns. Topics also include disturbance events, dispersal, colonization and invasion, and biological hierarchy.

**Prereq.:** BIOL 1505 or BIOL 2602 or GEOG 1503.

**GEOG 5805 Remote Sensing 1 3 s.h.**

Analysis and interpretation of earth features from both airborne and satellite observation platforms. Themes include photogrammetry, digital data manipulation, multispectral imagery, and interpretation of environmental features. Not available to students who have taken GEOG 3710.

**Prereq.:** GEOG 2610 or GEOG 2611 or GEOG 3712; and Junior standing.

**GEOG 5806 Remote Sensing 2 3 s.h.**

A continuation of Remote Sensing 1; focusing on advanced theory of image classification, image processing and enhancement, and spatial analytical methods.

**Prereq.:** GEOG 5805.

**GEOG 5810 Geographic Information Science 1 3 s.h.**

Introduction to the principles of collection, storage, manipulation, retrieval, analysis and visualization of spatial data in a computer environment. Not available to students who have taken GEOG 3732.

**Prereq.:** GEOG 2610 or GEOG 2611 or GEOG 3712; and Junior standing.

**GEOG 5811 Geographic Information Science 2 3 s.h.**

A continuation of GIScience 1 focusing on theory and application of advanced techniques in spatial data handling, modeling, and spatial analysis. Not available to students who have taken GEOG 3765.

**Prereq.:** GEOG 5810.

**GEOG 5812 Global Positioning Systems and GIScience 3 s.h.**

Background, application and theory of satellite positioning technology. Incorporates GPS field data collection and subsequent integration with GIS analysis tools.

**Prereq.:** GEOG 3701 or GEOG 5810 or permission of instructor.

**GEOG 5814 3D Modeling and GIS 3 s.h.**

3D modeling and visualization techniques using GIS (Geographic Information Science) and Geo-Spatial technology. Topics include 3D surfaces, animations, design and rendering of spatial data.

**Prereq.:** GEOG 3701 or GEOG 5810.

**GEOG 5820 Directed Research in Geography 1-3 s.h.**

An in-depth study of a specific problem in geography. The problem is dependent upon the student's interest and competence, availability of faculty supervision and department equipment. May be repeated up to 3 s.h.

**Prereq.:** 20 s.h. of Geography.

**GEOG 5850 International Area Study 3 s.h.**

A course in the geography and history of a selected international area with emphasis on cultural development by traveling in the selected region. The class and travel is supervised by the geography and/or history faculty. The course grade is based upon a term paper which must be submitted within 60 days after the end of the course.

**Prereq.:** permission of the chairperson.

## Bachelor of Arts in Geography

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
LASS 1510	Exploring Critical Questions in LASS	
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 1510	College Algebra	
or MATH 2623	Quantitative Reasoning	
or STAT 2625	Stat Lit and Crit Reasoning	
or STAT 2601	Introductory Statistics	
General Education Knowledge Domains		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model.		
Arts and Humanities		6
Natural Sciences (2 courses, one must include a lab)		7
Required of the major:		
GEOG 1503	Physical Geography	
Social Sciences		6
GEOG 2626	World Geography	
or GEOG 2640	Human Geography	
Social and Personal Awareness		6
General Education Elective		3
At least 21 s.h. of GEOG courses must be at the 3700-level or above. Grade of C or better is required. Courses cannot be taken CR/NC and cannot count towards both the major and minor.		
<b>Required Courses (6 s.h.):</b>		6
GEOG 1503	Physical Geography	
GEOG 4890	Geography Capstone	
<b>Select one of the following courses (3 s.h.):</b>		3
GEOG 2626	World Geography	
GEOG 2640	Human Geography	
<b>Select one of the following courses (3 s.h.):</b>		3
GEOG 2610	Map Use and Interpretation	
GEOG 2611	Geospatial Foundations	

**Regional Geography - Select one course from the following (3 s.h.):** 3

GEOG 3713	Geography of South America	3
GEOG 3715	Geography of Middle America	3
GEOG 3717	Geography of Europe	3
GEOG 3719	Geography of the United States	3
GEOG 3721	Geography of Ohio	3
GEOG 3750	Topics in Regional Geography	3
GEOG 5850	International Area Study	3

**Geography Skills - Select two of the following (6 s.h.):** 6

GEOG 3701	Introduction to Geographic Information Science	3
GEOG 3702	Introduction to Remote Sensing	3
GEOG 3712	Thematic Map Design and Symbolization	3
GEOG 3775	Field Methods in Geography	3
GEOG 3781	GIS Applications for the Social Sciences	3
GEOG 3782	GIS Applications for the Natural Sciences	3
GEOG 4801	Advanced Geographic Information Science	3
GEOG 4802	Advanced Remote Sensing	3
GEOG 5812	Global Positioning Systems and GIScience	3
GEOG 5814	3D Modeling and GIS	3

Select at least 12 s.h. of additional Geography electives (at least 9 s.h. must be 3700-level or higher.)  
 Total Hours Required for the Degree = 120

Suggested Minors Include: Environmental Science, Anthropology, Geoscience, Sociology, Political Science, History

## BA in Geography with GIScience Certificate

### Suggested 4-Year Semester Plan

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
GEOG 1503	Physical Geography	3
ENGL 1550	Writing 1	3
MATH 1510	College Algebra (Mathematics Requirement)	4
or MATH 2623	or Quantitative Reasoning	
FNLG 1550	Elementary Foreign Language	4
LASS 1510	Exploring Critical Questions in LASS	3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
GEOG 2626	World Geography	3
or GEOG 2640	or Human Geography	
GEOG 2610	Map Use and Interpretation	3
or GEOG 2611	or Geospatial Foundations	
ENGL 1551	Writing 2	3
FNLG 2600	Intermediate Foreign Language	4
Arts and Humanities 15XX/26XX-level course		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
GEOG 37XX-level Geography Regional course		3
Arts and Humanities 15XX/26XX-level course		3
Social and Personal Awareness 15XX/26XX-level course		3
Natural Science with Lab 15XX/26XX-level course		4
Minor 15XX/26XX-level course		3
<b>Semester Hours</b>		<b>16</b>

**Spring**

Geography Elective 37XX-level course	3	
Geography Elective 26XX/37XX-level course	3	
Social and Personal Awareness 15XX/26XX-level course	3	
Social Science 15XX/26XX course	3	
Minor 15XX/26XX-level course	3	
<b>Semester Hours</b>		<b>15</b>

**Year 3**

**Fall**

GEOG 3701	Introduction to Geographic Information Science	3
GEOG 3702	Introduction to Remote Sensing	3
CMST 1545	Communication Foundations	3
Elective 37XX-level course		3
Minor 15XX/26XX-level course		3
<b>Semester Hours</b>		<b>15</b>

**Spring**

Geography Elective 37XX-level course	3	
GEOG 4802	Advanced Remote Sensing	3
GE Elective 15XX/26XX-level course	3	
Elective 26XX/37XX-level course	3	
Minor 37XX-level course	3	
<b>Semester Hours</b>		<b>15</b>

**Year 4**

**Fall**

GEOG 4890	Geography Capstone	3
GIScience Certificate Elective 37XX-level course		3
Elective 26XX/37XX-level course		3
Elective 37XX-level course		3
Minor 37XX-level course		3
<b>Semester Hours</b>		<b>15</b>

**Spring**

GIScience Certificate Elective 37XX-level course	3	
Geography Elective 37XX-level course	3	
Elective 26XX/37XX-level course	3	
Elective 37XX-level course	3	
Minor 26XX/37XX-level course	3	
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>124</b>

## BA in Geography Without GIScience Certificate

### Suggested 4-Year Semester Plan

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
GEOG 1503	Physical Geography	3
ENGL 1550	Writing 1	3
MATH 1510	College Algebra	4
FNLG 1550	Elementary Foreign Language	4
or MATH 2623	or Quantitative Reasoning	
LASS 1510	Exploring Critical Questions in LASS	3
<b>Semester Hours</b>		<b>13</b>
<b>Spring</b>		
GEOG 2626	World Geography	3
or GEOG 2640	or Human Geography	

GEOG 2610 or GEOG 2611	Map Use and Interpretation or Geospatial Foundations	3
ENGL 1551	Writing 2	3
FNLG 2600	Intermediate Foreign Language	4
Arts and Humanities 15XX/26XX-level course		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
GEOG 37XX	Geography Regional Course	3
Arts and Humanities 15XX/26XX-level course		3
Social and Personal Awareness 15XX/26XX-level course		3
Natural Science with Lab 15XX/26XX-level course		4
Minor 15XX/26XX-level course		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
Geography Elective 37XX-level course		3
Geography Elective 26XX/37XX-level course		3
Social and Personal Awareness 15XX/26XX-level course		3
GE Elective 37XX-level course		3
Minor 15XX/26XX-level course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
Geographic Skill 37XX/58XX course		3
Geography Elective 37XX-level course		3
CMST 1545	Communication Foundations	3
Elective 37XX-level course		3
Minor 15XX/26XX-level course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
Geographic Skill 37XX/58XX course		3
Geography Elective 37XX-level course		3
GE Elective 15XX/26XX-level course		3
Elective 26XX/37XX-level course		3
Minor 37XX-level course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
GEOG 4890	Geography Capstone	3
Elective 37XX-level course		3
Elective 37XX-level course		3
Elective 37XX-level course		3
Minor 37XX-level course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
Elective 37XX-level course		3
Elective 37XX-level course		3
Elective 37XX-level course		3
Elective 26XX/37XX-level course		3
Minor 26XX/37XX-level course		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

- Demonstrate understanding of the fundamental themes of human and physical geography: region, movement, human/environmental interaction, landscape, and place.
- Demonstrate understanding of spatial patterns and processes in the human and physical environment.
- Effectively use, analyze, and interpret maps and other graphic representations of geographic information.
- Be proficient in geographic methods and techniques such as cartography, GIScience, remote sensing, and field methods.
- Effectively communicate geographic information in written and oral forms.
- Complete a research proposal that requires synthesis of relevant literature and development of a viable geographic research project.

## Bachelor of Arts in Geography-GIS/RS Track

COURSE	TITLE	S.H.
<b>General Education Requirement</b>		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
STAT 2601	Introductory Statistics	
or MATH 2623	Quantitative Reasoning	
or STAT 2625	Stat Lit and Crit Reasoning	
<b>General Education Knowledge Domains</b>		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model.		
Arts and Humanities		6
Natural Sciences (2 courses, one must include a lab)		7
<b>NS Required of the major:</b>		
GEOG 1503	Physical Geography	
Social Sciences		6
GEOG 2626	World Geography	
or GEOG 2640	Human Geography	
Social and Personal Awareness		6
LASS 1510	Exploring Critical Questions in LASS	3
<b>Foreign Language Requirement</b>		8
At least 21 s.h. of GEOG courses must be at the 3700-level or above. Grade of C or better is required. Courses cannot be taken CR/NC and cannot count towards both the major and minor.		
<b>Required Courses (15 s.h.):</b>		
GEOG 1503	Physical Geography	
GEOG 2611	Geospatial Foundations	
GEOG 3701	Introduction to Geographic Information Science	
GEOG 3702	Introduction to Remote Sensing	
GEOG 4890	Geography Capstone	
<b>Select one of the following courses (3 s.h.):</b>		
GEOG 2626	World Geography	
GEOG 2640	Human Geography	
<b>Regional Geography - Select one course from the following (3 s.h.):</b>		
GEOG 3713	Geography of South America	
GEOG 3715	Geography of Middle America	
GEOG 3717	Geography of Europe	
GEOG 3719	Geography of the United States	
GEOG 3721	Geography of Ohio	
GEOG 3750	Topics in Regional Geography	
GEOG 5850	International Area Study	
<b>Select one course from the following (3 s.h.):</b>		

## Learning Outcomes

Geography majors, upon fulfilling the requirements of the major, will:

GEOG 4801	Advanced Geographic Information Science	
GEOG 4802	Advanced Remote Sensing	
<b>Select two additional courses from the following (6 s.h.):</b>		
GEOG 3712	Thematic Map Design and Symbolization	
GEOG 3775	Field Methods in Geography	
GEOG 3781	GIS Applications for the Social Sciences	
GEOG 3782	GIS Applications for the Natural Sciences	
GEOG 4801	Advanced Geographic Information Science	
GEOG 4802	Advanced Remote Sensing	
GEOG 4825	Geography Internship	
GEOG 4840	Seminar in Geography	
GEOG 5812	Global Positioning Systems and GIScience	
GEOG 5814	3D Modeling and GIS	
GEOG 5820	Directed Research in Geography	

Select one 3 s.h. GEOG course at the 3700-level or higher 3

Four Required Support Courses (12-13 s.h.):

CSIS 1590	Survey of Computer Science and Information Systems	
CSIS 1595	Fundamentals of Programming and Problem-Solving 1	
CSIS 3722	Development of Databases	

Select one of the following courses which satisfies the General Education MATH requirement:

STAT 2601	Introductory Statistics	
STAT 2625	Stat Lit and Crit Reasoning	
MATH 2623	Quantitative Reasoning	

Total Hours Required for the Degree = 120

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
GEOG 1503	Physical Geography	3
LASS 1510	Exploring Critical Questions in LASS	3
Mathematics Requirement		3-4
STAT 2601	Introductory Statistics	
or		
STAT 2625	Stat Lit and Crit Reasoning	
or		
MATH 2623	Quantitative Reasoning	
FNLG 1550	Elementary Foreign Language	4
<b>Semester Hours</b>		<b>16-17</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
FNLG 2600	Intermediate Foreign Language	4
GEOG 2611	Geospatial Foundations	3
GEOG 2626	World Geography	3
or GEOG 2640	or Human Geography	
Arts and Humanities 15XX/26XX Course		3
<b>Semester Hours</b>		<b>16</b>

<b>Year 2</b>		
<b>Fall</b>		
GEOG 3701	Introduction to Geographic Information Science	3
GEOG 3702	Introduction to Remote Sensing	3
Social Science 15XX/26XX course		3
Natural Science 15XX/26XX level course w/lab		4

CSIS 1590	Survey of Computer Science and Information Systems	3
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**Semester Hours 16**

<b>Spring</b>		
Social and Personal Awareness 15XX/26XX- level course		3
Minor 15XX/26XX- level course		3
Arts and Humanities 15XX/26XX level course		3
CSIS 1595	Fundamentals of Programming and Problem-Solving 1	3
GEOG 37XX Regional Geography Elective		3

**Semester Hours 15**

<b>Year 3</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
GEOG 4801	Advanced Geographic Information Science	3
or GEOG 4802	or Advanced Remote Sensing	
Social Science 15XX/26XX course		3
Social and Personal Awareness 15XX/26XX- level course		3
CSIS 3722	Development of Databases	3

**Semester Hours 15**

<b>Spring</b>		
Minor 15XX/26XX- level course		3
GEOG Elective 37XX/48XX- level course		3
Minor 15XX/26XX- level course		3
Minor 15XX/26XX- level course		3
Elective 37XX/48XX- level course		3

**Semester Hours 15**

<b>Year 4</b>		
<b>Fall</b>		
GEOG 4890	Geography Capstone	3
Minor 37XX/48XX- level course		3
GIS Elective GEOG 37XX/48XX/58XX- level course		3
GEOG Elective 37XX/48XX- level course		3
Elective 37XX/48XX- level course		3

**Semester Hours 15**

<b>Spring</b>		
Minor 37XX/48XX- level course		3
GEOG 37XX- level or higher elective		3
GIS Elective GEOG 37XX/48XX/58XX- level course		3
Elective 37XX/48XX- level course		3
Elective 37XX/48XX- level course		3

**Semester Hours 15**

**Total Semester Hours 123-124**

## Learning Outcomes

Geography majors, upon fulfilling the requirements of the major, will:

- Demonstrate understanding of the fundamental themes of human and physical geography: region, movement, human/environmental interaction, landscape, and place.
- Demonstrate understanding of spatial patterns and processes in the human and physical environment.
- Effectively use, analyze, and interpret maps and other graphic representations of geographic information.
- Be proficient in geographic methods and techniques such as cartography, GIScience, remote sensing, and field methods.
- Effectively communicate geographic information in written and oral forms.

- Complete a research proposal that requires synthesis of relevant literature and development of a viable geographic research project.

In addition to the above, students completing the GIS/RS Track or a Certificate in Geospatial Science and Technology will:

- Demonstrate proficiency in one or more applications of geospatial technology: geographic information systems, global positioning systems, and remote sensing.

## Certificate in Geospatial Science and Technology (GSAT)

The certificate in Geospatial Science and Technology provides a program for students and professionals interested in geospatial careers and technologies (including Geographic Information Science, Remote Sensing, the Global Positioning System, Cartography, and spatial data handling and analysis). The Certificate signifies academic proficiency in Geospatial Science and Technology and is administered by the Department of Geography. It is rendered upon completion of the requirements below and includes both a physical copy of the certificate plus an entry on student transcripts.

Students must take a minimum of 18 s.h. (6 courses) as listed below and complete them with a cumulative GPA of 3.00 (B) or higher and no course grade below a C. The certificate is available to undergraduates and non-degree seeking professionals who meet course requirements. Note that some classes may require prerequisites courses for entrance.

COURSE	TITLE	S.H.
<b>Required Courses (9 s.h.)</b>		
GEOG 2611	Geospatial Foundations	
GEOG 3701	Introduction to Geographic Information Science	
GEOG 3702	Introduction to Remote Sensing	
<b>Select one course from the following (3 s.h.)</b>		
GEOG 4801	Advanced Geographic Information Science	
GEOG 4802	Advanced Remote Sensing	
<b>Select two elective courses from the following (6-7 s.h.):</b>		
GEOG 3712	Thematic Map Design and Symbolization	
GEOG 3775	Field Methods in Geography	
GEOG 3781	GIS Applications for the Social Sciences	
GEOG 3782	GIS Applications for the Natural Sciences	
GEOG 4825	Geography Internship <sup>1</sup>	
GEOG 4801	Advanced Geographic Information Science	
GEOG 4802	Advanced Remote Sensing	
GEOG 4840	Seminar in Geography	
GEOG 5812	Global Positioning Systems and GIScience <sup>2</sup>	
GEOG 5814	3D Modeling and GIS	
GEOG 5820	Directed Research in Geography <sup>1</sup>	
CSIS 3722	Development of Databases	
CSIS 3726	Visual/Object-Oriented Programming	
CEEN 2610 & 2610L	Surveying and Surveying Laboratory	

<sup>1</sup> These courses are allowed for credit in the GSAT certificate only if they contain a significant Geospatial Science and Technology related component, are taken for 3 s.h. of credit, and are given approval by the chairperson.

<sup>2</sup> These courses are allowed to count for elective credit only if they have not been taken under required courses.

## Learning Outcomes

The department offers a Certificate in Geospatial Science and Technology. The certificate represents academic proficiency for career-oriented students and professionals in the geospatial field to include geographic information science, remote sensing, global positioning systems, cartography, and spatial data handling and analysis. It is rendered upon completion of the requirements and includes a physical copy of the certificate and entry on the student's transcript.

### Learning Outcomes

Students, upon fulfilling the requirements of the Certificate in Geospatial Science and Technology (GSAT), will:

- Effectively use, analyze, and interpret maps and other graphic representations of geographic information.
- Be proficient in geographic methods and techniques such as cartography, GIScience, remote sensing, and field methods.
- Effectively communicate geographic information in written and oral forms.

Demonstrate proficiency in one or more applications of geospatial technology – geographic information systems, global positional systems, and remote sensing.

## Spatial Information Systems (SIS) Individualized Curriculum Program (ICP)

In addition to offering the Geography major, the department coordinates an Individualized Curriculum Program (ICP) in Spatial Information Systems that combines courses in Geography and Computer Science and Information Systems, which leads to a Bachelor of Applied Science degree. A foreign language is not required to complete this degree.

The program is focused on three areas:

- Geography
- Computer Science and Information Systems
- specialty electives

Required GEOG and CSIS courses are specified on the Curriculum Sheet.

## Learning Outcomes

Spatial Information Systems majors, upon fulfilling the requirements of the major will:

- Demonstrate understanding of spatial patterns and processes in the human and physical environments.
- Demonstrate proficiency in one or more applications of geospatial technology – Geographic Information Systems, Global Positioning Systems and/or Remote Sensing.
- Complete a research proposal that requires synthesis relevant literature and development of a viable geographic research project.

Total hours required for the SIS ICP degree is 124 s.h. of which at least 48 s.h. must be at the 3000-level or higher. No minor or foreign language is required for this degree.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	

Mathematics Requirement		
Arts and Humanities courses		6
Natural Science		7
GEOG 1503 meets 3 s.h. of Natural Science Requirement		
Social Science		6
GEOG 2626 or GEOG 2640 meet 3 s.h. of the Social Science		
Social and Personal Awareness		6
LASS 1510	Exploring Critical Questions in LASS	3
or STEM 1520	STEM First Year Orientation	
<b>Required Geography Core Courses</b>		
GEOG 1503	Physical Geography	3
GEOG 4890	Geography Capstone	3
GEOG 2610	Map Use and Interpretation	3
or GEOG 2611	Geospatial Foundations	
GEOG 2626	World Geography	3
or GEOG 2640	Human Geography	
<b>Required Geospatial Core Courses</b>		
GEOG 3701	Introduction to Geographic Information Science	3
GEOG 3702	Introduction to Remote Sensing	3
GEOG 4801	Advanced Geographic Information Science	3
GEOG 5812	Global Positioning Systems and GIScience	3
<b>Required Complementary Skill Courses</b>		
DDT 1505	CAD Technology 1	4
ENGL 3743	Professional and Technical Writing	3
<b>Required CSIS Core Courses</b>		
CSIS 1590	Survey of Computer Science and Information Systems	3
CSIS 2610	Programming and Problem-Solving	4
CSIS 3726	Visual/Object-Oriented Programming	4
CSIS 3722	Development of Databases	3
Select at least 6 s.h. from the following CSIS/CSCI Info elective courses: 6-8		
CSIS 3760	Electronic Commerce Programming	
CSIS 4822	Database Applications	
CSIS 5824	Applied Artificial Intelligence	
CSIS 5838	Graphics and Animation for Gaming	
CSCI 5895	Special Topics (with approval of the chairperson)	
INFO 3774	Multimedia Technology	
INFO 3775	Multimedia Authoring	
Select at least 6 s.h. from the following GEOG elective courses with approval of the chairperson: 6		
GEOG 3712	Thematic Map Design and Symbolization	
GEOG 3726	Urban Geography	
GEOG 3737	Soils and Land Use	
GEOG 3741	Transportation Geography	
GEOG 3775	Field Methods in Geography	
GEOG 4825	Geography Internship	
GEOG 4840	Seminar in Geography	
GEOG 5806	Remote Sensing 2	
GEOG 5814	3D Modeling and GIS	
GEOG 5820	Directed Research in Geography	
<b>Electives</b>		
Select a minimum of 21 hours of outside electives. <sup>1</sup>		21
<b>Suggested (but not limited to) Courses</b>		
Select an additional 8-10 hours from the following:		8-10
ANTH 3702	Archaeology (Prerequisite ANTH 1500 or ANTH 1503)	
ANTH 3778	Archaeological Techniques (Prerequisite ANTH 3702)	
ANTH 4825	New World Archaeology: Topics (Prerequisite ANTH 3702)	

ANTH 4890	Advanced Topics in Archaeology (Prerequisite ANTH 3702)
BIOL 3780	General Ecology (Prerequisite BIOL 2602)
DDT 2606	CAD Solid Modeling (Prerequisite CCT 1503 or DDT 1505)
DDT 2607	Civil 3D (Prerequisite DDT 1503 or DDT 1505)
GEOG 2615	Geology and the Environment 1 (Prerequisite GEOL 1504 or GEOL 1505 or GEOL 2611)
GEOG 3706	Geology of Economic Mineral Deposits (Prerequisite GEOL 1505 or GEOL 2605)
GEOG 5815	Geology and the Environment 2 (Prerequisite GEOL 2615 or ENST 2600)

**Total Semester Hours 126-130**

<sup>1</sup> Courses taken under this section allow the SIS major to choose areas of application appropriate to his/her field of interest. Or it may allow further development of the student in a direction of her/his choice, such as environmental studies, biological sciences, archeology, or drafting and design. The choice is left open for the student in consultation and with approval of the faculty members overseeing the ICP. Some suggested elective courses are listed but the student may also select additional courses from the GEOG and computer elective listings above. Be aware that selected courses may require prerequisites (in parentheses).

Summary:

GER hours: 40 s.h.

Total GEOG hours: 30 s.h.

Total CSIS/INFO hours: 20-22 s.h.

Total complementary skill hours: 6 s.h.

Outside elective hours: 18 s.h.

Additional hours: 8-10 s.h.

## Minor in Geographic Information Science

COURSE	TITLE	S.H.
<b>Required Courses</b>		
GEOG 2611	Geospatial Foundations	3
GEOG 3701	Introduction to Geographic Information Science	3
GEOG 3702	Introduction to Remote Sensing	3
GEOG 4801	Advanced Geographic Information Science	3
Select 6 s.h. from the following courses: 6		
GEOG 3712	Thematic Map Design and Symbolization	
GEOG 3775	Field Methods in Geography	
GEOG 3781	GIS Applications for the Social Sciences	
GEOG 3782	GIS Applications for the Natural Sciences	
GEOG 4802	Advanced Remote Sensing	
GEOG 5812	Global Positioning Systems and GIScience	
GEOG 5814	3D Modeling and GIS	
The following may be used to fulfill the required 6 s.h. above if the course theme is GIScience related:		
GEOG 4825	Geography Internship	
GEOG 4840	Seminar in Geography	
The following course is suggested but not required:		
CSIS 1590	Survey of Computer Science and Information Systems	



6 s.h. of the minor must be upper-division (3700+)

**Total Semester Hours** 18

## Minor in Human Geography

COURSE	TITLE	S.H.
<b>Required course (3 s.h.):</b>		
GEOG 2640	Human Geography	3
<b>Select 3 s.h. from the following courses:</b> 3		
GEOG 2610	Map Use and Interpretation	
GEOG 2611	Geospatial Foundations	
<b>Select 12 s.h. from the following courses with 6 s.h. being upper-division (3700+) credit:</b> 12		
GEOG 2626	World Geography	
GEOG 2650	Global Economic Landscapes	
GEOG 3701	Introduction to Geographic Information Science	
GEOG 3712	Thematic Map Design and Symbolization	
GEOG 3724	Themes in Cultural Geography	
GEOG 3726	Urban Geography	
GEOG 3741	Transportation Geography	
GEOG 3745	The Automobile in American Culture	
GEOG 3780	Medical Geography	
GEOG 5850	International Area Study	
<b>The following may be used to fulfill the required 12 s.h. above if the course theme is human geography related:</b>		
GEOG 4825	Geography Internship	
GEOG 4840	Seminar in Geography	

**Total Semester Hours** 18

## Minor in Environmental Geography

COURSE	TITLE	S.H.
<b>Select 3 s.h. from the following courses:</b>		
GEOG 1503	Physical Geography	3
GEOG 2630	Weather	3
<b>Select 3 s.h. from the following courses:</b>		
GEOG 2610	Map Use and Interpretation	3
GEOG 2611	Geospatial Foundations	3
<b>Select 12 s.h. from the following courses:</b>		
GEOG 1503	Physical Geography	3
GEOG 2630	Weather	3
GEOG 3701	Introduction to Geographic Information Science	3
GEOG 3702	Introduction to Remote Sensing	3
GEOG 3703	Human Impacts on the Environment	3
GEOG 3705	Mountain Geography	3
GEOG 3730	Global Climates	3
GEOG 3733	Severe and Hazardous Weather	3
GEOG 3735	Water in the Earth System	3
GEOG 3737	Soils and Land Use	3
GEOG 3775	Field Methods in Geography	3
GEOG 3782	GIS Applications for the Natural Sciences	3
GEOG 5802	Biogeography	3
<b>The following may be used to fulfill the required 12 s.h. above if the course theme is environmentally related:</b>		
GEOG 4840	Seminar in Geography	3

**Total Number of Semester Hours - 18**

## Minor in Regional Geography

COURSE	TITLE	S.H.
<b>Select 3 s.h. from the following courses:</b> 3		
GEOG 2626	World Geography	
GEOG 2640	Human Geography	
<b>Select 15 s.h. from the following courses:</b> 15		
GEOG 3713	Geography of South America	
GEOG 3715	Geography of Middle America	
GEOG 3717	Geography of Europe	
GEOG 3719	Geography of the United States	
GEOG 3721	Geography of Ohio	
GEOG 3724	Themes in Cultural Geography	
GEOG 3750	Topics in Regional Geography	
<b>The following may be used to fulfill the required 15 s.h. if the course theme is regionally related:</b>		
GEOG 4840	Seminar in Geography	
GEOG 5850	International Area Study	
6 s.h. of the minor must be in courses numbered 3700 or higher		

**Total Semester Hours** 18

## Minor in General Geography

COURSE	TITLE	S.H.
<b>Required Course:</b>		
GEOG 1503	Physical Geography	3
<b>Select 3 s.h. from the following:</b> 3		
GEOG 2626	World Geography	
GEOG 2640	Human Geography	
<b>Select 3 s.h. from the following physical/environmental geography courses:</b> 3		
GEOG 2630	Weather	
GEOG 3703	Human Impacts on the Environment	
GEOG 3705	Mountain Geography	
GEOG 3730	Global Climates	
GEOG 3733	Severe and Hazardous Weather	
GEOG 3735	Water in the Earth System	
GEOG 3737	Soils and Land Use	
GEOG 5802	Biogeography	
<b>Select 3 s.h. from the following geospatial techniques courses:</b> 3		
GEOG 2610	Map Use and Interpretation	
GEOG 2611	Geospatial Foundations	
<b>Select 3 s.h. from the following human and regional geography courses:</b> 3		
GEOG 2650	Global Economic Landscapes	
GEOG 3713	Geography of South America	
GEOG 3715	Geography of Middle America	
GEOG 3717	Geography of Europe	
GEOG 3719	Geography of the United States	
GEOG 3721	Geography of Ohio	
GEOG 3724	Themes in Cultural Geography	
GEOG 3726	Urban Geography	
GEOG 3741	Transportation Geography	
GEOG 3745	The Automobile in American Culture	
GEOG 3750	Topics in Regional Geography	
GEOG 3775	Field Methods in Geography	
GEOG 3780	Medical Geography	
GEOG 4825	Geography Internship	

GEOG 4840	Seminar in Geography	
GEOG 5850	International Area Study	
<b>Select 3 s.h. from any upper-division course listed above or any course listed below:</b>		<b>3</b>
GEOG 3701	Introduction to Geographic Information Science	
GEOG 3702	Introduction to Remote Sensing	
GEOG 3712	Thematic Map Design and Symbolization	
GEOG 5812	Global Positioning Systems and GIScience	
6 s.h. of the minor must be in courses number 3700 or higher.		
<b>Total Semester Hours</b>		<b>18</b>

## Department of History

### Welcome

Hello! I want to tell you how pleased we are to welcome you to Youngstown State University and to the Department of History. With a faculty of nine, we offer courses across a broad range of subjects and have something, we believe, to interest everyone.

I hope that you will drop by and visit us at the department on the fifth floor of DeBartolo Hall, room 519. Please feel welcome to stop in for advice, general information, or just to chat. You should also watch for History Club and Phi Alpha Theta notices about scheduled events throughout the semester.

I also encourage you to drop by the Youngstown Historical Center of Industry and Labor located at 151 Wood Street on the southern edge of campus. The museum is managed by the department, and you and your guests are very welcome to visit us there. (Your student ID grants you free admission at any time.)

Brian Bonhomme

Acting Chair of the Department of History

### Mission

**The Department of History at Youngstown State University is dedicated to the discovery and dissemination of knowledge about the past, to edify our present, and better plan for the future. The department promotes and integrates scholarship, teaching, and service to educate its undergraduate and graduate students. It promotes civic engagement with the wider community. Through the teaching of history in and out of the classroom the department fosters understanding and appreciation of diversity and provides a global perspective. Our aim is to examine and disseminate knowledge of the past and of the nature of its study and reconstruction through a variety of educational experiences and historical methodologies and to train future scholars of history.**

The student majoring in history must complete, in addition to the general University requirements, the group requirements outlined on the curriculum sheet (p. 326). It is recommended that the student select courses with assistance from an advisor, since certain courses are preferable to others according to whether one contemplates graduate study, secondary school teaching, or some other career.

The Bachelor of Arts in History can be completed in eight semesters if students average 16 hours per semester.

For more information, visit the Department of History in DeBartolo Hall, room 519 or contact us at (330) 941-3452.

#### Chair

**Brian Bonhomme**, Ph.D., Professor, Chair

#### Professor

**Daniel Ayana**, Ph.D., Professor

**Eleanor A. Congdon**, Ph.D., Associate Professor

**Donna M. DeBlasio**, Ph.D., Professor

**Jacob Labendz**, Ph.D., Assistant Professor

**Thomas E. Leary**, Ph.D., Associate Professor

**Martha Pallante**, Ph.D., Professor

**David A. Simonelli**, Ph.D., Professor

**Fred W. Viehe**, Ph.D., Professor

### Majors

- Bachelor in History (p. 325)

### Minors

- Minor in History (p. 328)
- Minor in Applied History (p. 328)
- Judaic Studies Minor (p. 329)

### Certificates

- Certificate in Historic Preservation (p. 327)

#### **HIST 1500 Discovering World History 3 s.h.**

Introduction to the methods, problems, and content of world history from Antiquity to the present. Emphasizes the relevance of past events and developments to the modern world. Does not count toward the major or minor in history, nor toward integrated social science degrees.

**Gen Ed:** International Perspectives, Social Science, Social and Personal Awareness.

#### **HIST 1501 American Dreams: Introduction to United States History 3 s.h.**

Survey of American history focusing on five strategic events in the American past. Emphasis is on cultural conflict and compromise, institutional developments and revolutions, and the emergence of democracy as concept and practice. This course is intended for those students for whom history is not a requirement.

**Gen Ed:** Social Science.

#### **HIST 1511 World Civilization to 1500 3 s.h.**

Origins and growth of the major civilizations of the world from earliest times to about 1500. Placement into ENGL 1550 or completion of ENGL 1539 or ENGL 1540.

**Gen Ed:** Social Science.

#### **HIST 1511H Honors World Civilization to 1500 3 s.h.**

An honors course in the origins and growth of the major civilizations of the world from earliest times to about 1500 with emphasis on the analysis and critical evaluation of historical developments.

**Prereq.:** Eligibility for admissions to University Honors Program, or recommendation of a history instructor.

**Gen Ed:** Social Science.

#### **HIST 1512 World Civilization from 1500 3 s.h.**

Development of the major civilizations of the world from 1500 to the present. Placement into ENGL 1550 or completion of ENGL 1539 or ENGL 1540.

**Gen Ed:** International Perspectives, Social Science, Social and Personal Awareness.

#### **HIST 1512H Honors World Civilization from 1500 3 s.h.**

An honors course in the development of the major civilizations of the world from about 1500 to the present with emphasis on the analysis and critical evaluation of historical developments.

**Prereq.:** Eligibility for admissions to University Honors Program, or recommendation of a history instructor.

**Gen Ed:** International Perspectives, Social Science, Social and Personal Awareness.

**HIST 2601 American Military History 3 s.h.**

A survey of American military history from the origin of the United States Army to the present, with emphasis on how military policies and strategies have been influenced by the domestic and foreign affairs of the United States.

**HIST 2605 Turning Points in United States History 1 3 s.h.**

Key episodes in the social, economic, political and cultural developments of the United States to 1877, exploring how diverse peoples shaped the growing nation.

**Prereq.:** Readiness for ENGL 1550.

**Cross-listed:** AMER 2605.

**Gen Ed:** Social Science.

**HIST 2605H Honors Turning Points in United States History 1 3 s.h.**

An honors course concerning the political, social, and economic development of the United States to 1877 with emphasis on the analysis and critical evaluation of historical developments.

**Prereq.:** Eligibility for admission to University Honors Program, or recommendation of a history instructor.

**Gen Ed:** Social Science.

**HIST 2606 Turning Points in United States History 2 3 s.h.**

Key episodes in the social, economic, political and cultural developments of the United States since 1877, exploring how diverse peoples shaped the growing nation.

**Prereq.:** Readiness for ENGL 1550.

**Cross-listed:** AMER 2606.

**Gen Ed:** Domestic Diversity, Social Science, Social and Personal Awareness.

**HIST 2606H Honors Turning Points in United States History 2 3 s.h.**

An honors course concerning the political, social, and economic development of the United States from 1877 to the present with emphasis on the analysis and critical evaluation of historical developments.

**Prereq.:** Eligibility for admission to University Honoree Program, or recommendation of a history instructor.

**Gen Ed:** Domestic Diversity, Social Science, Social and Personal Awareness.

**HIST 2655H Honors History of Western Civilization 1 3 s.h.**

An honors course in Western Civilization to 1715 with emphasis on the analysis of historical developments.

**HIST 2656H Honors History of Western Civilization 2 3 s.h.**

An honors course in Western Civilization from 1715 to the present with emphasis on the analysis of historical developments.

**HIST 3700 The Atlantic World 3 s.h.**

Development of the Atlantic rim from 1450 to 1700 with emphasis on the processes of exploration, cultural contact, and colonization. Cross-cultural focus on West Africa, the Caribbean and eastern North America.

**Prereq.:** HIST 1511 or HIST 2605.

**HIST 3702 Early America 3 s.h.**

From the first English interactions with the Native Americans and Africans, to the rebellion for Independence, to the struggles over the creation of the Constitution.

**Prereq.:** HIST 2605.

**HIST 3704 Age of Jefferson and Jackson 3 s.h.**

Early 19th century America, with emphasis on politics and culture before 1845.

**Prereq.:** HIST 2605.

**HIST 3706 Age of Lincoln and Grant 3 s.h.**

The period from 1845 to 1877, including the development of the North-South conflict, the war years, and the Reconstruction.

**Prereq.:** HIST 2605.

**HIST 3710 Incorporation of America, 1877-1919 3 s.h.**

The history of the United States from Reconstruction to the Treaty of Versailles, focusing on the transformation from a rural, agricultural nation to an urban, industrial nation. The nation's political, social, economic and cultural development, along with foreign policy.

**Prereq.:** HIST 2606.

**HIST 3712 United States in Crisis: 1920-1945 3 s.h.**

The Roaring Twenties, Great Depression, New Deal, and World War II. An examination of the social, economic, and political forces that enables America to cope with dramatic foreign and domestic crises.

**Prereq.:** HIST 2606.

**HIST 3713 Cold War America: 1945-1990 3 s.h.**

An exploration of U.S. efforts to grapple with the Soviet Union, civil rights and equality, the role of government, changing sexual and social mores, the welfare state, and deindustrialization.

**Prereq.:** HIST 2606.

**HIST 3715 Introduction to Historic Preservation 3 s.h.**

Introduction to the field of historic preservation. Provides historical context for the discipline as well as a basic grounding in the concepts and opportunities of the field.

**Prereq.:** HIST 2605 and HIST 2606.

**HIST 3717 Constitutional History of the United States 3 s.h.**

The development of the American constitutional system from colonial times to the present.

**Prereq.:** HIST 2605 or HIST 2606.

**HIST 3723 History of American Sports 3 s.h.**

An examination of sports within America from earliest times to the present. Special emphasis on the manner in which sports and society have influenced each other, such as racial and class relationships, social mobility, politics, religion, and foreign policy.

**Prereq.:** HIST 2605 or HIST 2606.

**HIST 3724 Colonial Latin America 3 s.h.**

Latin America from pre-Hispanic times to the independence, wars including both Spanish America and Brazil. Examines colonial institutions and the experiences of indigenous people, people of African descent, and women.

**Prereq.:** HIST 1512 or HIST 2605.

**HIST 3725 Modern Latin America 3 s.h.**

History of Latin America from the independence wars to the present. Examines political and economic developments as well as the social history of indigenous people, people of African descent, and women. U.S. influence in the region is also studied.

**Prereq.:** HIST 1512 or HIST 2606.

**HIST 3726 History of Women in the United States 3 s.h.**

Analysis of the various roles and contributions of women in American history.

**Prereq.:** HIST 2605 or HIST 2606.

**HIST 3727 Mexico and the Caribbean 3 s.h.**

Includes Mexico, Colombia, Venezuela, and the Central American republics. Special consideration is given to 20th century Mexico.

**Prereq.:** HIST 2605 or HIST 1512, or consent of instructor.

**HIST 3730 The Black Experience in American History 3 s.h.**

A historical study of Black people's roles in and contribution to the political, social, and economic development of American society.

**Prereq.:** HIST 2605 or HIST 2606, or AFST 2600.

**HIST 3731 History of African American Mayors 3 s.h.**

Study of African American mayors, beginning with the 1967 elections of Carl Stokes and Richard Hatcher to the present. Focus is on why African Americans were elected mayors, and what benefits they contributed to the African American community as well as to their respective cities.

**Prereq.:** HIST 2606 or AFST 2600.

**HIST 3734 History of Organized Crime in the United States 3 s.h.**

The history of organized crime emphasizes the organization of the criminal underworld, the ethnic, racial, and religious composition of criminal groups, and the impact of organized crime on prostitution, gambling, Prohibition, and drugs.

**Prereq.:** HIST 2605 or HIST 2606.

**HIST 3736 History of American Cities 3 s.h.**

City politics, social change, ethnic and racial issues, industrialization, and city planning during the 19th and 20th centuries. Other issues include the provision of city services, the rivalry between cities, and the development of the federal-urban relationship.

**Prereq.:** HIST 2605 or HIST 2606.

**HIST 3740 The Vietnam War 3 s.h.**

American involvement in Southeast Asia from the days of French rule to the fall of the Saigon government and beyond. Includes the war debate at home, and other consequences of the war.

**Prereq.:** HIST 1512, HIST 2606.

**HIST 3741 Diplomatic History of the United States 1 3 s.h.**

A study of American foreign relations as determined by interaction between domestic and international pressures (1) to 1900 and (2) since 1900.

**Prereq.:** HIST 2605.

**HIST 3742 Diplomatic History of the United States 2 3 s.h.**

A study of American foreign relations as determined by interaction between domestic and international pressures (1) to 1900 and (2) since 1900.

**Prereq.:** HIST 2606.

**HIST 3743 Labor in United States History 3 s.h.**

Traces the transformation of American workers and the impact of the labor movement upon the United States. Emphasizes the diversity of the working class and the historical context of the of the political and social implications of the labor movement.

**Prereq.:** HIST 2606.

**HIST 3744 The History of American Business 3 s.h.**

An examination of the growth and structural development of American business and its relationship to government from colonial times to the present with emphasis on the 20th century.

**Prereq.:** HIST 2605 or HIST 2606.

**HIST 3745 History of Jewish Labor 3 s.h.**

Examines Jewish labor history in Europe, the United States, and Israel. Explores the social history of the worker, gender and national differences, living and working conditions, as well as labor movements and worker political mobilization.

**Prereq.:** HIST 1512 or HIST 2606.

**HIST 3747 History of Appalachia 3 s.h.**

From 18th century settlement to present, emphasizing images of the region and its people, and focusing on issues of economic development, folk culture, religion, race, gender and outmigration.

**Prereq.:** HIST 2605 or HIST 2606.

**HIST 3748 History of Ohio 3 s.h.**

The important events and movements that have shaped Ohio history in the social, economic, religious and political areas.

**Prereq.:** HIST 2605 or HIST 2606.

**HIST 3749 History of African-United States Relations 3 s.h.**

Survey of African-U.S. relations from the transatlantic slave trade to the present with emphasis on the 20th century.

**Prereq.:** HIST 2606 or HIST 1512, or consent of instructor.

**HIST 3750 History of Modern Africa 3 s.h.**

The impact of colonialism on the peoples of 20th century Africa, focusing on subSahara: Colonialism, colonial administration, urbanization, nationalism, pan-Africanism, decolonialization and the challenges of modern Africa.

**Prereq.:** HIST 1512 or consent of instructor.

**HIST 3751 History of South Africa 3 s.h.**

From the beginnings of the 19th century to the present.

**Prereq.:** HIST 1512, HIST 2605, HIST 2606, or HIST 2663.

**HIST 3752 Ancient History 1 3 s.h.**

From the Neolithic Revolution to the Peloponnesian Wars. Intensive study of civilizations of Mesopotamia and Egypt, as well as Hellenic history.

**Prereq.:** HIST 1511.

**HIST 3753 Ancient History 2 3 s.h.**

The Hellenic Period to the fall of Rome. Intensive study of the Age of Alexander and the Roman Republic.

**Prereq.:** HIST 1511.

**HIST 3755 Early Medieval Civilization 3 s.h.**

A political, economic, intellectual and cultural history which traces events and developments throughout Europe from the collapse of the Ancient World to the beginning of the High Middle Ages.

**Prereq.:** HIST 1511.

**HIST 3756 High Medieval Civilization 3 s.h.**

A political, economic, intellectual and cultural history which traces events and developments throughout Europe during the High Middle Ages (eleventh through fifteenth centuries).

**Prereq.:** HIST 1511.

**HIST 3757 History of Medicine 3 s.h.**

Practices and theories of healing, and their relation to social and intellectual context, from ancient times to the present.

**Prereq.:** HIST 1511 or HIST 1512, or a social science course.

**HIST 3758 Renaissance Europe 3 s.h.**

A survey of European history from the end of the High Middle Ages to the 16th century. Emphasizes the rise of humanism and of Renaissance culture in Italy, its dissemination beyond the Alps as well as the development of national states and the flowering of the Late Medieval tradition in western and eastern Europe.

**Prereq.:** HIST 1511.

**HIST 3759 The Reformation Era 3 s.h.**

The history of Europe from the Lutheran Revolt to the Peace of Westphalia in 1648. Major themes of study are the causes of the Reformation, the impact of Luther, Calvin and the Radical Reformation, the Catholic Reform movement, the Wars of Religion, and the rise of the modern secular states.

**Prereq.:** HIST 1512.

**HIST 3760 The Age of Louis XIV 3 s.h.**

The history of Europe from 1600 to the outbreak of the French Revolution in 1789. Emphasis on France under Louis XIV and Louis XV, Old Regime society, and the intellectual creativity of the Eighteenth-Century Enlightenment. Also focuses on the widening confrontation between science and religion, the growth of Europe's overseas empire, and the emergence of the modern nation-state.

**Prereq.:** HIST 1512.

**HIST 3761 The French Revolution and Napoleon (1789-1815) 3 s.h.**

The French Revolution is examined in detail, especially from its outbreak to the fall of Robespierre. The last portion deals with the rise of Napoleon, his political role, his military campaigns, the reconstruction of Europe, and his fall at Waterloo.

**Prereq.:** HIST 1512.

**HIST 3762 The Second World War 3 s.h.**

An examination of the war's diplomatic and ideological origins; social, economic, and political factors; and strategic, tactical, and technological dimensions of the conflict in all major theaters.

**Prereq.:** HIST 1512 or HIST 2606.

**HIST 3763 Modern France, 1815 to Present 3 s.h.**

France from the fall of Napoleon to the present. Major cultural, intellectual, and political themes of the period. Impact of the two World Wars, France's post-war revival, the student riots of 1968, and the changes which have transformed French politics and society in the 1980s.

**Prereq.:** HIST 1512.

**HIST 3764 Modern Europe, 1715 to the Present 3 s.h.**

A survey of European history from the Enlightenment to the European Union. Themes include the development and debate surrounding European civilization's emphasis on individuality, technology, capitalism, class, war, and progress.

**Prereq.:** HIST 1512.

**HIST 3765 Europe from the Congress of Vienna to the Franco-Prussian War (1815-1871) 3 s.h.**

Such movements as Nationalism, the impact of the Industrial Revolution, Marxism, the growth of Democracy, Liberalism and Conservatism, Romanticism and Realism, Reform and Revolution, from the main themes of the period. The course is divided into two historical periods, from 1815 to the Revolution of 1848, and from 1848 to 1871 with the emphasis on the unification of Italy and of Germany and the New Europe that arose as a consequence.

**Prereq.:** HIST 1512.

**HIST 3766 Europe from the Franco-Prussian War to World War I 3 s.h.**

The impact of the Paris Commune; revolutionary movements and their contradictions; imperialism, political anti-Semitism, and the images of war; the Bismarckian international order and its suicide.

**Prereq.:** HIST 1512.

**HIST 3767 Europe from World War I to the Present 3 s.h.**

War, revolutions, and the European order; Versailles and its contradictions; the Fascist response to Communism and Depression; the interaction of Democracies, Fascism, and Stalinism in the making of World War II and the Cold War.

**Prereq.:** HIST 1512.

**HIST 3769 Modern Germany 3 s.h.**

Unification and modernization; scientific, technological, and cultural splendors; world power and disaster; Nazism, the Holocaust, and German society.

**Prereq.:** HIST 1512.

**HIST 3770 Asia to 1500 3 s.h.**

Political, economic, religious, artistic, and philosophical developments in India, China and along the Silk Road, from ancient times to 1500 C.E.

**Prereq.:** HIST 1511.

**HIST 3772 History of Modern China 3 s.h.**

China from the mid-19th century to date, with emphasis on Western impact, industrialization, intellectual trends, the Revolution of 1911, national reconstruction, student movements, the rise of Communism, and the contemporary scene.

**Prereq.:** HIST 1512 or consent of instructor.

**HIST 3774 Global Environmental History: Topics and Methods 3 s.h.**

The historical development and diversity of ideas and actions regarding the interaction of human societies and the natural environment. From 1492 to the present, with particular emphasis on the nineteenth and twentieth centuries. Economic growth and resource depletion. Emergence and development of conservation, environmentalism, ecology. Ideas, events, and institutions. Historiography and methods of environmental history.

**Prereq.:** HIST 1511, HIST 1512, HIST 2605 or HIST 2606.

**HIST 3775 Global Industrial Revolution 3 s.h.**

Major themes and events in the origins and global diffusion of industrialization from the 18th to the 21st centuries. The Industrial Revolution and associated changes in technology, society, culture, economy, geo-politics, environment, and public health.

**Prereq.:** HIST 1512 or HIST 2605 or HIST 2606.

**HIST 3776 History of Modern Japan 3 s.h.**

Japan's history from the Meiji Restoration to date, including the industrialization, the party movement, intellectual development, the rise and fall of militarism, postwar reconstruction, and current problems.

**Prereq.:** HIST 2662 or consent of instructor.

**HIST 3778 Russia to 1855 3 s.h.**

History of Russia from its ninth century origins to the eve of the Great Reforms of Tsar Alexander II. Surveys political, social, cultural, and intellectual developments, the Orthodox Church, and Russian expansion and colonization in Siberia and Alaska.

**Prereq.:** HIST 1511 or HIST 1512.

**HIST 3779 Russia 1855 to Present 3 s.h.**

The Russian Empire from the Great Reforms of Alexander II to its collapse during WWI, the Revolutions of 1917, the rise and fall of the Soviet Union (1922-1991), and Soviet successor states to the present.

**Prereq.:** HIST 1512.

**HIST 3780 History of Eastern Europe 3 s.h.**

The histories of the nations that have made up Central and Eastern Europe from the earliest times to their present, and their contributions to world civilization.

**Prereq.:** HIST 1511 or HIST 1512.

**HIST 3782 History of the Balkans 3 s.h.**

Southeastern Europe from the 4th century to the present, including the impact of the Byzantine and Ottoman Empires and the two World Wars.

**Prereq.:** HIST 1511 or HIST 1512.

**HIST 3783 Britain and Its Empire 1: 1688-1870 3 s.h.**

An integrative history of Britain and its empire, from the Glorious Revolution to Victoria's crowning as Empress of India. Emphasis on how the development of British liberal politics, industrial society and Romantic culture influenced its empire and vice versa.

**Prereq.:** HIST 1512.

**HIST 3784 Britain and Its Empire 2: 1870-Present 3 s.h.**

An integrative history of Britain and its empire, from the opening of the Suez Canal to the present. Emphasis on how Britain's decline as a world political, diplomatic, military and industrial power impacted its world empire during the twentieth century, noting how the empire changed Britain itself in the process.

**Prereq.:** HIST 1512.

**HIST 3785 The Mediterranean World: Modern Italy, 1815-Present 3 s.h.**

Survey of Italian history from the Risorgimento to the present. Emphasis on the reasons for the late emergence of Italian nationhood, the rise of Italian nationalism, unification, the weakness of Italian democracy, the rise of Fascism, and the political instability Italians have experienced since 1945.

**Prereq.:** HIST 1512.

**HIST 3787 History of Women in Europe 3 s.h.**

Analysis of the various roles and contributions of women in European history from the Renaissance to the present.

**Prereq.:** HIST 1512.

**HIST 3788 The Holocaust 3 s.h.**

Study of the attempted genocide against the Jews in World War II. Special emphasis on racial theories that gave rise to Nazism, politics of collaboration, various forms of resistance, and ethical problems associated with the concentration camps.

**Prereq.:** HIST 1512.

**HIST 3789 Jewish History 3 s.h.**

An overview of Jewish history in the past twenty centuries, with emphasis on achievements in the arts, sciences, and politics, and on precedents for the Holocaust.

**Prereq.:** HIST 1511 and HIST 1512.

**HIST 3790 Medieval Britain 3 s.h.**

From the Celtic times to 1485. Emphasizes the political and cultural evolution of the British people before and after the Norman Conquest, including the creation of the English identity, the development of constitutional monarchy, the propaganda value of architecture, art, and literature, and the role of the Church.

**Prereq.:** HIST 1511.

**HIST 3792 History of Ireland 3 s.h.**

Irish history from St. Patrick to the Good Friday Agreement. Emphasis is on Ireland's relationship with Britain, Europe and the United States, and its troubled status as colony, occupied nation and part of the United Kingdom.

**Prereq.:** HIST 1512.

**HIST 3793 Tudor-Stuart Britain 3 s.h.**

England, Scotland, Wales, and Ireland from the end of the War of the Roses to the ascension of George I to the British throne in 1714. Emphasis on the development of the centralized Tudor state, colonization of the New World and India, the English Civil War and Glorious Revolution, European wars for naval supremacy, and the culture of the Shakespearean age.

**Prereq.:** HIST 1512.

**HIST 3794 The First World War 3 s.h.**

An examination of the origins of the war, the social, economic, intellectual and political repercussions, and the technical and military developments.

**Prereq.:** HIST 1512.

**HIST 3795 The World since 1945 3 s.h.**

Global developments including the Cold War, decolonization and economic dependency in the non-western world; militarism and terrorism; pollution; and the internationalism of the world.

**Prereq.:** HIST 1512.

**HIST 3796 Genocide and Mass Murder 3 s.h.**

The origins, definitions, causes and forms of genocide. Case studies will be drawn from across geographical regions and time periods such as Armenia, the Holocaust, Cambodia, the former Yugoslavia, Rwanda and the Sudan.

**Prereq.:** HIST 1512 or consent of instructor.

**HIST 3797 Middle East 1: The Islamic Centuries 3 s.h.**

From Muhammad to the collapse of the Ottoman Empire. Intensive study of the medieval Islamic caliphates, Crusades, Turks, and European imperialism.

**Prereq.:** HIST 1511 or 2661.

**HIST 3798 Middle East 2: The Modern Period 3 s.h.**

The 20th century. Impact of oil, Arab nationalism, Zionism, Islamic fundamentalism.

**Prereq.:** HIST 1512 or 2661.

**HIST 4801 Select Problems in American History 3 s.h.**

Specific problems in American history in such areas as economics, political theory, and cultural and intellectual history. May be repeated with different content.

**Prereq.:** Consent of instructor.

**HIST 4808 Oral Communication Projects in History 1 s.h.**

Development of oral communication skills for students of history. Emphasizes the understanding of effective speaking practices, the development of self-analysis, and the presentation of material gathered from a linked course.

**Concurrent:** Enrollment in an upper division history course.

**HIST 4809 Documentation and Interpretation of Historic Sites 3 s.h.**

Methods of documenting historic properties especially as related to the National Register of Historic Places. Includes interpretation of historic sites for public exhibit.

**Prereq.:** HIST 3715.

**HIST 4811 Practicum in Historic Preservation 3 s.h.**

Experience in historic preservation through student participation in a wide variety of historic preservation projects. Prepares students for internships outside the university.

**Prereq.:** HIST 3715 and permission of Historic Preservation Committee.

**HIST 4812 Historic Preservation Internship 3 s.h.**

Practical application of principles and methods in the field of historic preservation with the goal of producing a completed project. Internship to be selected by student in conjunction with program director. May be repeated once.

**Prereq.:** HIST 3715 and approval of internship committee.

**HIST 4815 American Material Culture 3 s.h.**

A discussion and analysis of the use and importance of material artifacts as texts for the recovery of the American past. Emphasis on sources not traditionally utilized by historians. Examples include the contextual analysis of children's books, foodways, and sacred spaces.

**Prereq.:** HIST 2605 and HIST 2606, or AMER 2601 and AMER 3701.

**Cross-listed:** AMER 4815.

**HIST 4850 International Area Study 3-9 s.h.**

A course in the geography and history of a selected international area with emphasis on cultural development by traveling in the selected region. The class and travel is supervised by the Geography and/or History faculty. The course grade is based upon a term paper which must be submitted within 60 days after the end of the course.

**Prereq.:** By permit only.

**HIST 4851 Select Problems in European History 3 s.h.**

Specific problems in European history in such areas as economics, political theory, and cultural and intellectual history. May be repeated with different content.

**Prereq.:** Consent of instructor.

**HIST 4860 Select Problems in Transnational History 3 s.h.**

Transnational issues in African, Asian, Latin American, and/or Middle Eastern history in such areas as economic, political, social, cultural and intellectual history. May be repeated with different content.

**Prereq.:** Consent of the instructor.

**HIST 4870 Senior Research Seminar 3 s.h.**

A seminar that requires the writing of an extensive paper based mainly on primary material. All history majors must take this course.

**Prereq.:** Senior standing and completion of four upper-division history courses with a grade of "C" or better.

**Gen Ed:** Capstone.

**HIST 5806 American Architectural History 1 3 s.h.**

Development of structural styles and trends within the United States, focusing on formal architectural styles.

**Prereq.:** HIST 2605 and HIST 2606.

**HIST 5807 American Architectural History 2 3 s.h.**

Development of vernacular, folk, and industrial architecture in the United States. Focus is on local variants with emphasis on 20th Century specimens. Field trips will view representative building types, especially housing.

**Prereq.:** HIST 5806.

**HIST 5810 Conservation of the Historic Built Environment 3 s.h.**

The theory and practice of preserving and rehabilitating all aspects of the historic built environment. Provides broad exposure through field experience.

**Prereq.:** HIST 3715.

## Judaic Studies

**JUDC 1500 Introduction to Jewish Studies 3 s.h.**

A broad overview of Jewish history, culture, literature, and religion. Covers Jewish Civilization from its emergence in the Ancient Near East to its diverse worldwide expressions in the present day.

**JUDC 3751 Lessons of the Holocaust from the United States Holocaust Memorial Museum 3 s.h.**

The history of the Holocaust as revealed by the United States Holocaust Memorial Museum. Requires supervised visit to the United States Holocaust Memorial Museum in Washington D.C. in addition to coursework.

**Prereq.:** By permit only.

## Bachelor of Arts in History

In addition to completing the requirements listed on the curriculum sheet (p. 326), a history major must provide an essay examination, a book review, a research paper, and one additional paper for a portfolio (all produced in history classes) that will be maintained in the Department of History. The essay examination should be from an upper-division course. The book review should include:

- a title page
- bibliographic entry at the beginning
- content analysis and evaluation with a minimum of 1,000 words, typed in a 10-12 font, double-spaced, and one-inch margins

The research paper will be based on primary or secondary sources with a minimum of 3,500 words, typed in a 10-12 font, double-spaced with end notes or footnotes, bibliographic entries based on Chicago Manual of Style, a title page, and one-inch margins. A second paper from an upper-division class is also to be included of at least 1,500 words.

Students transferring 20 or more semester hours in history to Youngstown State University from another institution must meet the group requirements to obtain a major in History for graduation. At least five of the courses in Groups B, C, and D (see curriculum sheet (p. 326)) must be taken at Youngstown State University.

It is recommended that the student in choosing electives should acquire as broad a background as possible in the social sciences and the humanities. Particular attention is called to courses offered by the departments of English, Economics, Political Science, Philosophy, Art, Music, Geography, and Sociology, and to the humanities courses. Students contemplating graduate work in history should consider taking more foreign language courses than the minimum necessary to meet the general degree requirement. Finally, the student is reminded that the Department of History takes seriously the University's emphasis on the importance of adequate competence in the English language (See Proficiency in English, in the Academic Policies and Procedures section of the *Undergraduate Catalog*); when there is need, students majoring in history should include in their programs advanced composition courses and courses in speech.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Natural Sciences		6
Social Science		6
Social and Personal Awareness		6
General Education Elective		3
<b>Major Requirements</b>		
<b>Group A - Survey Courses</b>		
Select one of the following Sections:		12
Section 1:		
HIST 1511	World Civilization to 1500	
HIST 1512	World Civilization from 1500	
HIST 2605	Turning Points in United States History 1	
HIST 2606	Turning Points in United States History 2	
Section 2:		
HIST 1511H	Honors World Civilization to 1500	
HIST 1512H	Honors World Civilization from 1500	
HIST 2605H	Honors Turning Points in United States History 1	
HIST 2606H	Honors Turning Points in United States History 2	
Select eight courses from the following with no more than three from each group:		24
<b>Group B - American History</b>		
HIST 2601	American Military History	
HIST 3700	The Atlantic World <sup>1</sup>	
HIST 3702	Early America	
HIST 3704	Age of Jefferson and Jackson	
HIST 3706	Age of Lincoln and Grant	
HIST 3710	Incorporation of America, 1877-1919	
HIST 3712	United States in Crisis: 1920-1945	

HIST 3713	Cold War America: 1945-1990
HIST 3715	Introduction to Historic Preservation
HIST 3717	Constitutional History of the United States
HIST 3723	History of American Sports
HIST 3726	History of Women in the United States
HIST 3730	The Black Experience in American History
HIST 3731	History of African American Mayors
HIST 3734	History of Organized Crime in the United States
HIST 3736	History of American Cities
HIST 3740	The Vietnam War <sup>1</sup>
HIST 3741	Diplomatic History of the United States 1
HIST 3742	Diplomatic History of the United States 2
HIST 3743	Labor in United States History
HIST 3744	The History of American Business
HIST 3747	History of Appalachia
HIST 3748	History of Ohio
HIST 3762	The Second World War
HIST 4801	Select Problems in American History
HIST 4811	Practicum in Historic Preservation
HIST 4812	Historic Preservation Internship
HIST 4815	American Material Culture
HIST 5806	American Architectural History 1
HIST 5807	American Architectural History 2
HIST 5810	Conservation of the Historic Built Environment
<b>Group C - European History</b>	
HIST 3745	History of Jewish Labor
HIST 3752	Ancient History 1
HIST 3753	Ancient History 2
HIST 3755	Early Medieval Civilization
HIST 3756	High Medieval Civilization
HIST 3757	History of Medicine
HIST 3758	Renaissance Europe
HIST 3759	The Reformation Era
HIST 3760	The Age of Louis XIV
HIST 3761	The French Revolution and Napoleon (1789-1815)
HIST 3762	The Second World War
HIST 3763	Modern France, 1815 to Present
HIST 3764	Modern Europe, 1715 to the Present
HIST 3765	Europe from the Congress of Vienna to the Franco-Prussian War (1815-1871)
HIST 3766	Europe from the Franco-Prussian War to World War I
HIST 3767	Europe from World War I to the Present
HIST 3769	Modern Germany
HIST 3774	Global Environmental History: Topics and Methods <sup>1</sup>
HIST 3778	Russia to 1855
HIST 3779	Russia 1855 to Present <sup>1</sup>
HIST 3780	History of Eastern Europe
HIST 3782	History of the Balkans
HIST 3783	Britain and Its Empire 1: 1688-1870
HIST 3784	Britain and Its Empire 2: 1870-Present
HIST 3785	The Mediterranean World: Modern Italy, 1815-Present
HIST 3787	History of Women in Europe
HIST 3788	The Holocaust
HIST 3790	Medieval Britain
HIST 3794	The First World War
HIST 4850	International Area Study <sup>1</sup>

HIST 4851	Select Problems in European History	
<b>Group D - Transnational History</b>		
HIST 3700	The Atlantic World <sup>1</sup>	
HIST 3724	Colonial Latin America	
HIST 3725	Modern Latin America	
HIST 3727	Mexico and the Caribbean	
HIST 3740	The Vietnam War	
HIST 3749	History of African-United States Relations	
HIST 3750	History of Modern Africa	
HIST 3751	History of South Africa	
HIST 3770	Asia to 1500	
HIST 3772	History of Modern China	
HIST 3774	Global Environmental History: Topics and Methods	
HIST 3775	Global Industrial Revolution	
HIST 3776	History of Modern Japan	
HIST 3779	Russia 1855 to Present <sup>1</sup>	
HIST 3789	Jewish History	
HIST 3795	The World since 1945	
HIST 3796	Genocide and Mass Murder	
HIST 3797	Middle East 1: The Islamic Centuries	
HIST 3798	Middle East 2: The Modern Period	
HIST 4850	International Area Study	
HIST 4860	Select Problems in Transnational History	
<b>Capstone</b>		
HIST 4870	Senior Research Seminar	3
Total Semester Hours = 39 s.h.		

<sup>1</sup> No course can count in more than one group. Courses may count in only one category. Six courses in Groups B, C, and D must be at 3700 level or higher.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
HIST 1511 or HIST 1512	World Civilization to 1500 or World Civilization from 1500	3
HIST 2605 or HIST 2606	Turning Points in United States History 1 or Turning Points in United States History 2	3
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
Foreign Language 1550		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
HIST 1511 or HIST 1512	World Civilization to 1500 or World Civilization from 1500	3
HIST 2605 or HIST 2606	Turning Points in United States History 1 or Turning Points in United States History 2	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Foreign Language 2600		4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
HIST 37XX Gr B America		3
HIST 37XX Gr C Europe		3
Minor 15XX/26XX course		3
HUM 15XX/26XX		3

Foreign Language 2605		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
HIST 37XX Gr C Europe		3
HIST 37XX Gr D Transnational		3
Minor 15XX/26XX course		3
HUM/NS 15XX/26XX		4
Foreign Language 3702		4
<b>Semester Hours</b>		<b>17</b>
<b>Year 3</b>		
<b>Fall</b>		
HIST 37XX Gr B America		3
HIST 37XX Gr D Europe		3
Minor 37XX course		3
NS 15XX/26XX		3
Elective 15XX/26XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
HIST 37XX Gr C or B		3
Minor 37XX course		3
HUM 15XX/26XX		3
NS+Lab 15XX/26XX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
HIST 37XX Gr B or D		3
Minor 37XX course		3
Elective		1-3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>13-15</b>
<b>Spring</b>		
HIST 4870	Senior Research Seminar	3
Minor 37XX course		3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>120-122</b>

*Learning Outcomes*

1. Students will demonstrate the skills necessary for the historian to analyze information and report findings effectively, by recognizing the difference between primary and secondary resources and being able to critically read and analyze their content; by effectively communicating in written and oral media; and by exhibiting satisfactory critical-thinking and synthesis skills.
2. Students will demonstrate comprehension of the basic concepts that guide the historian's work, by understanding: the concepts of historiography and that historical interpretation is not fixed but changes over time; the significance of chronologies and the impact of cause and effect; and the importance and impact of cultural diversity on the past and its relevance in the present.

## Certificate in Historic Preservation

Historic preservation specialists encourage the renovation and re-use of America's built environment: buildings and bridges, farms and factories, battlefields and business districts, and even entire neighborhoods. Professionals in this fast-growing field find employment with consulting firms



or with local, state, or national preservation groups, museums, or government agencies.

Youngstown State University offers a Certificate in Historic Preservation for students at either the undergraduate or graduate level. Classes give students training in historic research skills plus direct experience in real-world preservation tasks.

COURSE	TITLE	S.H.
<b>Preservation Core Courses</b>		
HIST 2605	Turning Points in United States History 1	3
HIST 2606	Turning Points in United States History 2	3
HIST 3715	Introduction to Historic Preservation	3
HIST 5806	American Architectural History 1	3
HIST 5807	American Architectural History 2	3
HIST 5810	Conservation of the Historic Built Environment	3
HIST 4811	Practicum in Historic Preservation (group project in the community)	3
HIST 4812	Historic Preservation Internship	3
<b>Electives</b>		
Select two of the following:		6
HIST 3736	History of American Cities	
HIST 3748	History of Ohio	
HIST 4815	American Material Culture	
GEOG 3726	Urban Geography	
ANTH 4890	Advanced Topics in Archaeology	
ANTH 4825	New World Archaeology: Topics	
MRCH 4870	Global Fashion Economy	
<b>Total Semester Hours</b>		<b>30</b>

Other courses may be substituted with permission of the department. In addition, hands-on instruction in preservation technology is available through arrangement with nationally renowned Belmont Technical College. Undergraduates may earn the certificate as part of a history major or as a minor supplementing work in a related field such as art history, anthropology, geography, or engineering.

## Learning Outcomes

1. Students will demonstrate the skills necessary for the historian to analyze information and report findings effectively, by recognizing the difference between primary and secondary resources and being able to critically read and analyze their content; by effectively communicating in written and oral media; and by exhibiting satisfactory critical-thinking and synthesis skills.
2. Students will demonstrate comprehension of the basic concepts that guide the historian's work, by understanding: the concepts of historiography and that historical interpretation is not fixed but changes over time; the significance of chronologies and the impact of cause and effect; and the importance and impact of cultural diversity on the past and its relevance in the present.
3. Students will demonstrate the ability to translate traditional historical scholarship into media meant primarily for non-academic audiences.

## Minor in Applied History

COURSE	TITLE	S.H.
HIST 2605	Turning Points in United States History 1	3
HIST 2606	Turning Points in United States History 2	3
HIST 5806	American Architectural History 1	3
HIST 5807	American Architectural History 2	3
HIST 4812	Historic Preservation Internship	3
HIST 5810	Conservation of the Historic Built Environment	3

HIST 3715	Introduction to Historic Preservation	3
HIST 4811	Practicum in Historic Preservation	3
<b>Total Semester Hours</b>		<b>24</b>

## Minor in History

COURSE	TITLE	S.H.
HIST 1511	World Civilization to 1500	3
or HIST 1512	World Civilization from 1500	
HIST 2605	Turning Points in United States History 1	3
or HIST 2606	Turning Points in United States History 2	
Select four courses chosen from Groups B, C, & D below. One course must be selected from each group. The fourth course may be from Group B, C, or D. Courses must be at the 3700-level or higher:		12
<b>Group B (American)</b>		
HIST 2601	American Military History	
HIST 3700	The Atlantic World <sup>1</sup>	
HIST 3702	Early America	
HIST 3704	Age of Jefferson and Jackson	
HIST 3706	Age of Lincoln and Grant	
HIST 3710	Incorporation of America, 1877-1919	
HIST 3712	United States in Crisis: 1920-1945	
HIST 3713	Cold War America: 1945-1990	
HIST 3715	Introduction to Historic Preservation	
HIST 3717	Constitutional History of the United States	
HIST 3723	History of American Sports	
HIST 3726	History of Women in the United States	
HIST 3734	History of Organized Crime in the United States	
HIST 3736	History of American Cities	
HIST 3740	The Vietnam War <sup>1</sup>	
HIST 3741	Diplomatic History of the United States 1	
HIST 3742	Diplomatic History of the United States 2	
HIST 3743	Labor in United States History	
HIST 3744	The History of American Business	
HIST 3747	History of Appalachia	
HIST 3748	History of Ohio	
HIST 3762	The Second World War <sup>1</sup>	
HIST 4801	Select Problems in American History	
HIST 4811	Practicum in Historic Preservation	
HIST 5806	American Architectural History 1	
HIST 5807	American Architectural History 2	
HIST 4812	Historic Preservation Internship	
HIST 4815	American Material Culture	
HIST 5810	Conservation of the Historic Built Environment	
<b>Group C (European)</b>		
HIST 3752	Ancient History 1	
HIST 3753	Ancient History 2	
HIST 3755	Early Medieval Civilization	
HIST 3757	History of Medicine	
HIST 3758	Renaissance Europe	
HIST 3759	The Reformation Era	
HIST 3760	The Age of Louis XIV	
HIST 3761	The French Revolution and Napoleon (1789-1815)	
HIST 3762	The Second World War <sup>1</sup>	
HIST 3763	Modern France, 1815 to Present	
HIST 3764	Modern Europe, 1715 to the Present	

HIST 3765	Europe from the Congress of Vienna to the Franco-Prussian War (1815-1871)
HIST 3766	Europe from the Franco-Prussian War to World War I
HIST 3767	Europe from World War I to the Present
HIST 3769	Modern Germany
HIST 3774	Global Environmental History: Topics and Methods <sup>1</sup>
HIST 3775	Global Industrial Revolution <sup>1</sup>
HIST 3778	Russia to 1855
HIST 3779	Russia 1855 to Present <sup>1</sup>
HIST 3780	History of Eastern Europe
HIST 3782	History of the Balkans
HIST 3784	Britain and Its Empire 2: 1870-Present
HIST 3785	The Mediterranean World: Modern Italy, 1815-Present
HIST 3787	History of Women in Europe
HIST 3788	The Holocaust
HIST 3790	Medieval Britain
HIST 3794	The First World War
HIST 4850	International Area Study <sup>1</sup>
HIST 4851	Select Problems in European History
<b>Group D (Non-Western)</b>	
HIST 3700	The Atlantic World <sup>1</sup>
HIST 3724	Colonial Latin America
HIST 3725	Modern Latin America
HIST 3727	Mexico and the Caribbean
HIST 3740	The Vietnam War <sup>1</sup>
HIST 3749	History of African-United States Relations
HIST 3750	History of Modern Africa
HIST 3751	History of South Africa
HIST 3770	Asia to 1500
HIST 3772	History of Modern China
HIST 3774	Global Environmental History: Topics and Methods <sup>1</sup>
HIST 3775	Global Industrial Revolution <sup>1</sup>
HIST 3776	History of Modern Japan
HIST 3779	Russia 1855 to Present <sup>1</sup>
HIST 3789	Jewish History
HIST 3795	The World since 1945
HIST 3797	Middle East 1: The Islamic Centuries
HIST 3798	Middle East 2: The Modern Period
HIST 4850	International Area Study <sup>1</sup>
HIST 4860	Select Problems in Transnational History
<b>Total Semester Hours</b>	<b>18</b>

<sup>1</sup> No course can count in more than one group. Courses may count in only one category.

## Minor in Judaic Studies

COURSE	TITLE	S.H.
HIST 1512	World Civilization from 1500	3
REL 2601	Introduction to World Religions	3
HIST 3789	Jewish History	3
JUDC 3751	Lessons of the Holocaust from the United States Holocaust Memorial Museum	3
Select two of the following:		6
HIST 3798	Middle East 2: The Modern Period	

HIST 3788	The Holocaust
REL 3731	Hebrew Scriptures
HBRW 2605	Advanced Intermediate Hebrew
<b>Total Semester Hours</b>	<b>18</b>

## Department of Philosophy and Religious Studies

### Introduction

The YSU Department of Philosophy and Religious Studies offers a wealth of productive studies for life and technical knowledge for career opportunities. Our programs make an excellent addition to complement any career. The majors in Philosophy or Religious Studies are also sound preparations for a wide range of graduate programs. The department offers degrees in Philosophy, Religious Studies, and Pre-Counseling (with either a Philosophy or a Religious Studies focus), as well as a number of minors.

### Welcome to Philosophy and Religious Studies

Welcome to Youngstown State University and the Department of Philosophy and Religious Studies! Our department has a lot to offer on matters of central importance to the lives of our students, our community, and the mission of YSU. In addition to our wonderful course offerings, we have a vibrant student organization, organize a speakers series with world-class scholars, and are home to both the James Dale Ethics Center and the Center for Islamic Studies. I encourage you to explore our website (<http://philrel.yosu.edu>) to learn more about the offerings of the Philosophy and Religious Studies Department at Youngstown State University!

-Alan Tomhave, Chair, Department of Philosophy and Religious Studies

### Contact Information

Alan Tomhave, Chair

[aetomhave@ysu.edu](mailto:aetomhave@ysu.edu)

(330) 941-3447

For more information, call (330) 941-3448 or visit the Department of Philosophy and Religious Studies (<http://www.yosu.edu/philrel>).

We are located in 401 DeBartolo Hall.

### Specialized Centers

The Department of Philosophy and Religious Studies houses The Dr. James Dale Ethics Center and the Center for Islamic Studies.

#### The Dr. James Dale Ethics Center

The Dr. James Dale Ethics Center was founded in 1993 to support the study and teaching of ethics and to promote moral reflection and conduct in personal and professional life. Its activities are guided by the conviction that institutions of higher education play a crucially important role in creating and sustaining a democratic people, concerned not only with private but also common purposes. To accomplish its mission, the Center:

- Sponsors ethics seminars, workshops, and conferences for regional professionals;
- Offers lectures to the University and general community;
- Provides ethics consultation for regional organizations;
- Promotes the scholarship of teaching and learning of ethics

The director of the Ethics Center is Dr. Mark Vopat, Professor of Philosophy in the Department of Philosophy and Religious Studies.

## The Center for Islamic Studies

The Center for Islamic Studies is devoted to the scholarly study of Islam and to educating the community about Islamic religion, history, and culture. It was created through an agreement between the Youngstown Muslim community and Youngstown State University. To accomplish its mission, the Center:

- Offers lectures to the University and general community;
- Co-publishes (with the Iqbal Academy Pakistan) the *Iqbal Quarterly*, which aims to introduce the works of the South Asian poet-thinker Muhammad Iqbal to general readers in the English-speaking world;
- Participates in The Pluralism Project of the Department of Philosophy and Religious Studies, which publishes *E Pluribus*, a newsletter devoted to interfaith activities in the Mahoning Valley and to events of general interest in the field of religious pluralism.

The director of the Center for Islamic Studies is Dr. Mustansir Mir, University Professor of Islamic Studies in the Department of Philosophy and Religious Studies.

## Philosophy Circle

The Philosophy Circle is a group of more than 140 faculty, alumni, and friends whose donations support special departmental activities, including awards for outstanding student papers and funding for the Dr. Thomas and Albert Shipka Speakers Series. The Shipka Speakers Series has sponsored over 40 lectures by outstanding scholars, on topics related to philosophy and religious studies that are of wide interest to both the university and the larger community. For videos of recent talks, see the Shipka Speakers Series (<http://philrel.yzu.edu/shipka-speakers-series>) page.

## Departmental Scholarships

The Department of Philosophy and Religious Studies offers the following scholarships. Please contact the department office for more information.

- Evangelos Michelakis Meshel Scholarship in Philosophy
- Robert G. & S. Ann Berich Meigetter Scholarships in Philosophy
- Dr. Earl Eugene Eminhizer Scholarship in Religious Studies
- Sister Jean Gillespie Memorial Award in Religious Studies
- Bevan-Dillingham Scholarship in Philosophy and Religious Studies
- Helen Pavlov Memorial Scholarship in Philosophy and Religious Studies

## Philosophy and Religious Studies Club

The Philosophy and Religious Studies Club is a student-run group open to all persons interested in philosophy and religious studies. The club hosts an annual educational fundraiser that showcases the interests of a department faculty member. Topics vary for this popular evening complete with music, food, and wine tasting. The students also organize bi-monthly "Eat Drink Think" events (EDT), which are social events focused on classic and modern texts held over food and drinks. EDT events provide a nice forum for majors, non-majors, and community members to delve deeply into persistent questions in philosophy and religion and their relation to public policy, national and global events, and academics. For more information, please visit Philosophy and Religious Studies (<http://www.yzu.edu/philrel>) website and join our Facebook (<https://www.facebook.com/pages/YSU-Philosophy-and-Religious-StudiesDepartment/188613781180674>) group, "YSU Philosophy and Religious Studies Club," for updates about upcoming events.

### Chair

Alan E. Tomhave, Ph.D., Associate Professor, Chair

### Professor

Michael K. Jerryson, Ph.D., Associate Professor

Mustansir Mir, Ph.D., Professor

Gabriel Palmer-Fernandez, Ph.D., Professor

Mark C. Vopat, Ph.D., Professor

Bruce N. Waller, Ph.D., Professor

## Majors

- Philosophy Major (p. 333)
- Religious Studies Major (p. 336)
- Philosophy Major, Pre-Counseling Tracks (p. 335)
- Religious Studies Major, Pre-Counseling Tracks (p. 337)

## Minors

- Professional Ethics Minor (p. 339)
- Philosophy Minor (p. 339)
- Religious Studies Minor (p. 339)
- Islamic Studies Minor (p. 339)

## Philosophy

### PHIL 1560 Introduction to Philosophy 3 s.h.

The nature of philosophy and its relation to science, religion, and art; study of the philosophical approach and attitude, the basic problem areas in philosophy, and some typical philosophical viewpoints.

**Gen Ed:** Arts and Humanities.

### PHIL 1561 Technology and Human Values 3 s.h.

An examination of the impact of technology and science on contemporary human values and investigations of social and political perspectives on modern technocracy, based on case studies in science, medicine, and engineering.

**Gen Ed:** Arts and Humanities.

### PHIL 1565 Critical Thinking 3 s.h.

An examination of the logical skills needed for critical thinking in practical situations. Topics include procedures and guidelines for identifying and evaluating arguments, recognizing and eliminating informal fallacies, and writing and critiquing argumentative essays.

**Gen Ed:** Arts and Humanities.

### PHIL 2608 The Examined Life 3 s.h.

Considers the nature of happiness and well-being and their relation to social institutions. Addresses the roles that civic and personal relations, morality, aesthetics, education, and religion play in providing happiness, purpose, and meaning in one's life. Cross listed as REL 2608.

**Gen Ed:** Arts and Humanities.

### PHIL 2610 Global Ethics 3 s.h.

Examination of morality and justice from a global perspective, including such topics as war, terrorism, and states; poverty and the global economy; religion, gender, and identity; globalization and the environment; and markets and intellectual property. Cross-listed as REL 2610.

**Gen Ed:** Arts and Humanities.

### PHIL 2612 Ancient & Medieval Philosophy 3 s.h.

An examination of philosophers and philosophical systems in Western civilization from the pre-Socratics until the Renaissance.

### PHIL 2619 Introduction to Logic 3 s.h.

Introduction to syllogistic or classical logic, symbolic and inductive logic. Emphasis on the rules of syllogism, immediate inferences, propositional functions, classes, truth tables, Venn diagrams; the use of analogy, generalization, the verification of hypotheses, and scientific method.

**Prereq.:** MATH 1501 or at least Level 20 on the Mathematics Placement Test.

**Gen Ed:** Mathematics.

**PHIL 2625 Introduction to Professional Ethics 3 s.h.**

An examination of the ideals and virtues central to professionalism; study of selected codes of professional ethics and their roots in classical ethical traditions; and analysis of selected ethical issues and problems in a variety of professions.

**Gen Ed:** Arts and Humanities.

**PHIL 2626 Engineering Ethics 3 s.h.**

An examination of ethical problems in the major fields of engineering and an explanation of the methodology needed to address them; an analysis of the rights and duties of engineers in their relations to clients, employers, the public, and the engineering profession.

**Prereq.:** One 2600-level PHIL course, or PHIL 1560 or ENTC 1505 or ENGR 1550.

**Gen Ed:** Arts and Humanities.

**PHIL 2627 Law and Criminal Justice Ethics 3 s.h.**

Examination of major theories in philosophy of law and justice, and the study of ethical issues and professional standards in criminal justice practice.

**Prereq.:** Any 2600-level PHIL course or PHIL 1560 or CJFS 2601, CJFS 2602 or CJFS 2603.

**Gen Ed:** Arts and Humanities.

**PHIL 2628 Business Ethics 3 s.h.**

Examines ethical problems in business, ethical responsibilities of business professional, and business as a global institution. Topics include the corporation, at-will employment, unions, technology, privacy, advertising, whistle-blowing, globalization, environmental impact, human rights, just distribution, affirmative action and cultural diversity.

**Gen Ed:** Arts and Humanities.

**PHIL 2631 Environmental Ethics 3 s.h.**

Application of ethical theories in evaluating human interaction with the natural environment, analysis of rights and duties regarding other species and future generations, the ethics of environmental activism, and philosophical and religious perspectives on environmental issues.

**Gen Ed:** Environmental Sustainability, Social and Personal Awareness.

**PHIL 2635 Ethics of War and Peace 3 s.h.**

Examines reasons for making war, for restraint on the conduct of war, and for rejecting war as an instrument of national policy as understood within a variety of moral traditions, both secular and religious.

**Gen Ed:** Arts and Humanities.

**PHIL 2698 Introductory Individual Study in Philosophy 1 s.h.**

Introductory study of a philosophical problem, movement, thinker, or the relationship of philosophy to problems in other disciplines. Intended to be an independent study course with subject matter dependent upon approval of the faculty member and student. May be repeated up to 3 s.h.

**PHIL 3702 History of Modern Philosophy 3 s.h.**

Study of major Western philosophical figures and movements from the Renaissance through the 19th century.

**Prereq.:** One 2600-level PHIL course or PHIL 1560.

**PHIL 3708 Social and Political Philosophy 3 s.h.**

A study of the philosophical foundations of democracy, dictatorship, and communism, especially their views of reality, knowledge, human nature, and morality, with attention to rights, duties, freedom, authority, dissent, censorship, crime and punishment, and religion.

**Prereq.:** PHIL 1560.

**PHIL 3711 General Ethics 3 s.h.**

Examination and evaluation of the major ethical theories in classical, dialectic, pragmatic and naturalistic, analytic and positivist, and existentialist thought.

**Prereq.:** PHIL 1560.

**Gen Ed:** Arts and Humanities.

**PHIL 3712 Philosophy of Religion 3 s.h.**

The philosophical investigation of religious questions such as existence and nature of the divine, the problem of evil, death and immortality, religion and science, and religious experience.

**Prereq.:** PHIL 1560 or REL 2601.

**Cross listed with** REL 3712.

**PHIL 3713 Philosophy of the Family 3 s.h.**

Examines the family from philosophical, political, and historical perspectives and considers issues of justice in familial relationships. Explores the relationship among parents, children, and the state, and reviews the evolving conceptions of childhood, child well-being, and children's rights.

**Prereq.:** ENGL 1551.

**PHIL 3714 Language and Mind 3 s.h.**

Introduction to the study of traditional philosophical problems in the analysis of linguistic structures and functions and of their implications for the nature of mind, including meaning, mental representation and causation, information processing, and psychological explanation.

**Prereq.:** One 2600-level PHIL course or PHIL 1560.

**PHIL 3715 Philosophy of Science 3 s.h.**

A philosophical consideration of some of the fundamental concepts and assumptions of the sciences: the nature of scientific knowledge; the relation of scientific to other kinds of knowledge and experience.

**Prereq.:** PHIL 1560.

**PHIL 3719 Symbolic Logic 3 s.h.**

The structure and properties of axiomatic systems; the theory of propositional and relational logic; the algebra of classes; related topics.

**Prereq.:** PHIL 2619.

**PHIL 3723 Philosophy of Law 3 s.h.**

Examination of the nature and limits of law, the justification of the legal system, the relationship between law and morality, state punishment of individuals, the justification for punishment, citizens' rights and issues of privacy, liberty, discrimination, and civil disobedience.

**Prereq.:** One 2600-level PHIL course or PHIL 1560.

**PHIL 3725 Biomedical Ethics 3 s.h.**

An examination of ethical issues posed by biomedical research and technology, including issues of informed consent, patients' rights, experimentation, genetic research and intervention, death and dying, and the allocation of scarce resources.

**Prereq.:** One 2600-level PHIL course or SOC 3703 or SOC 3745 or PSYC 3780 or admission to the NEOMED-YSU program or the BS in Nursing program.

**PHIL 3735 Ethics and Scientific Research 3 s.h.**

Definition and examination of the ethical basis of scientific conduct in reporting experimental results, using human and animal subjects, adopting protocols, and pursuing research with broad impact on human rights and social welfare.

**Prereq.:** PHIL 1560 or PHIL 2625.

**PHIL 3740 Muslim Thinkers and Thinkers 3 s.h.**

Examination of the theological, philosophical, legal, and political writings and ideas of major Muslim thinkers and mystics from the classical through the modern period, covering the continuities and differences.

**Prereq.:** any 2600-level REL course or PHIL 1560.

**Cross listed with** REL 3740.

**PHIL 3798 Intensive Individual Study of Philosophy 1 s.h.**

Intensive study of a philosophical problem, movement, thinker, or the relationship of philosophy to problems in other disciplines. Intended to be an independent study course with subject matter dependent upon approval of the faculty member and student. May be repeated up to 3 s.h.

**Prereq.:** One 3700-level PHIL course.

**PHIL 4805 Direct Readings in Philosophy 3 s.h.**

Independent study course with subject matter dependent upon approval of the faculty member in consultation with student.

**Prereq.:** Any 3700 level PHIL course.

**PHIL 4820 Seminar in Philosophy 3 s.h.**

Study in depth of a particular philosopher, topic, or area in philosophy, as determined by the instructor; may be repeated once with different course content.

**Prereq.:** One 3700-level PHIL course.

**PHIL 4859 Capstone Cooperative Seminar 1 s.h.**

The course aids capstone students in developing and following a schedule for timely completion of a major research project, provides general direction on effective methods for working on such a project, and encourages and facilitates cooperative work among advanced students by providing peers with whom to discuss their ideas, exchange drafts, and provide constructive comments on ongoing written work. Must be taken concurrently with PHIL 4861.

**PHIL 4861 Senior Capstone Project 3 s.h.**

Research and writing of a paper, or other committee approved project, on a philosophical topic, under the supervision of a full-time faculty member and in consultation with a committee of at least two other members of the department.

**Prereq.:** Philosophy major with senior standing and completion of at least 21 s.h. of PHIL courses.

**PHIL 4870 Internship in Ethical Practice 1-3 s.h.**

Students work with professionals in a local organization, thereby gaining direct access to the ethical issues involved in such an environment. Students will be supervised by an appropriate working professional and either a faculty member of the Dr. James Dale Ethics Center or another faculty member in the department selected for this purpose. The course grade shall be assigned by the YSU supervisor, based on the project journal, an evaluation of the student's on-site work by the participating professional and the YSU supervisor, and a final project paper. Registration by permit only. 1 s.h., repeatable to a total of.

**Prereq.:** One 3700-level PHIL or REL course.

## Religious Studies

**REL 2601 Introduction to World Religions 3 s.h.**

A survey of the major world religions exploring their distinctive features and common threads. A study of their founders, systems of thought, symbols, and sacred literatures.

**Gen Ed:** Arts and Humanities, International Perspectives, Social and Personal Awareness.

**REL 2602 Introduction to Religious Studies 3 s.h.**

Examines the religious features of doctrines, myths or practices and surveys various methods by which religion is explored and scrutinized.

**REL 2605 Myth, Symbol, and Ritual 3 s.h.**

An introduction to the nature and function of myth, symbol, and ritual. Myth interpretation, the relationship between societies and their myths, and the cultural use of myths, symbols, and rituals in religious and spiritual contexts.

**Gen Ed:** Arts and Humanities.

**REL 2608 The Examined Life 3 s.h.**

Considers the nature of happiness and well-being, their relation to social institutions, and the roles that civic and personal relations, morality, aesthetics, education, and religion play in providing happiness, purpose, and meaning in one's life. Cross listed as PHIL 2608.

**REL 2610 Global Ethics 3 s.h.**

Examination of morality and justice from a global perspective, including such topics as war, terrorism, and states; poverty and the global economy; religion, gender, and identity; globalization and the environment; and markets and intellectual property. Cross-listed as PHIL 2610.

**Gen Ed:** Arts and Humanities.

**REL 2611 Judaism Christianity and Islam 3 s.h.**

Judaism, Christianity, and Islam. Examines the origins, foundational texts, beliefs and practices, intellectual and spiritual dimensions, and cultural norms and values of each religion, as well as the structures of authority in the community founded by each religion and the factors that have promoted the survival of each.

**REL 2617 Introduction to Asian Religions 3 s.h.**

A survey of the religions of India, China, and Japan, their systems of thought, moral values, and methods of personal transformation.

**Gen Ed:** Arts and Humanities, International Perspectives, Social and Personal Awareness.

**REL 2621 Religion and Moral Issues 3 s.h.**

The relation of specific religious and moral issues to questions of personal conduct and social policy.

**Gen Ed:** Arts and Humanities.

**REL 2621H Honors Religion and Moral Issues 3 s.h.**

The relation of specific religious and moral issues to questions of personal conduct and social policy.

**Gen Ed:** Arts and Humanities.

**REL 2631 Religion and the Earth 3 s.h.**

A cross-cultural survey of the religious beliefs and values that have shaped our thinking about the earth. An exploration of the shifts in religious thought called for by the ecological crisis of sustainability.

**Gen Ed:** Arts and Humanities, Environmental Sustainability, Social and Personal Awareness.

**REL 2632 Jesus and the Gospels 3 s.h.**

The life and teachings of Jesus in their historical context. Examination of the ways in which Jesus is interpreted within the synoptic gospels.

**REL 2699 Introductory Individual Study in Religious Studies 1 s.h.**

Introductory study of a religious studies problem, movement, thinker, or the relationship of religious studies to problems in other disciplines. Intended to be an independent study course with subject matter dependent upon approval of the faculty member and student. May be repeated up to 3 s.h.

**REL 3708 African-American Religion 3 s.h.**

Development of African-American religion and theology from the days of slavery to the present.

**Prereq.:** One 2600-level REL or AFST course.

**REL 3710 African and Neo-African Religion 3 s.h.**

A study of African religious traditions and their pivotal role in the formation of African civilizations and communities in the African diaspora, including their adaptations of Islam and Christianity.

**Prereq.:** REL 2601 or PHIL 1560 or AFST 2600.

**REL 3712 Philosophy of Religion 3 s.h.**

The philosophical investigation of religious questions such as existence and nature of the divine, the problem of evil, death and immortality, religion and science, and religious experience.

**Prereq.:** PHIL 1560 or REL 2601.

**Cross listed with** PHIL 3712.

**REL 3720 The World of Islam 3 s.h.**

The study of the origins and development of classical and modern Islam, including the Prophet Muhammad, the Quran, and Muslims in America.

**Prereq.:** REL 2601.

**REL 3722 Popes Saints and Rebels 3 s.h.**

The origin and development of Christianity; examination of the life and teachings of Jesus; Christian theology, liturgy, and symbolism; and divisions of contemporary Christianity.

**Prereq.:** Sophomore standing.

**REL 3726 Buddhist Beliefs Practices and Debate 3 s.h.**

An Introduction to Buddhist traditions, their historical development in countries like India, China, Tibet and Thailand, and Buddhist positions on contemporary issues. Special attention to practices, beliefs, and ethics.

**Prereq.:** REL 2601 or REL 2617.

**REL 3728 Hindu Traditions 3 s.h.**

Examines Yoga, meditation, karma, reincarnation, and major devotional and ceremonial traditions that have developed around Shiva, Vishnu, and the Goddess. A central part of the course is the study of the dynamics between popular worship and the contemplative traditions of Hindu culture.

**Prereq.:** REL 2601, REL 2617 recommended.

**REL 3731 Hebrew Scriptures 3 s.h.**

A critical analysis of the Hebrew scriptures in terms of historical background, textual development, and religious and ethical themes.

**Prereq.:** One 2600-level REL course or JUDC 1500.

**REL 3732 Jesus and the Gospels 3 s.h.**

The life and teachings of Jesus in their historical context. Examination of the ways in which Jesus is interpreted within the synoptic gospels. Prereq.: One 2600-level REL or PHIL course 3740. Muslim Thinkers. Examination of the theological, philosophical, legal, and political writings and ideas of major Muslim thinkers from the classical through the modern period, covering the continuities and differences.

**Prereq.:** any 2600-level REL course or PHIL 1560.

**Cross listed with** REL 3740.

**REL 3733 Women And the Bible 3 s.h.**

A study of Biblical interpretation utilizing narratives that portray women in Hebrew and Christian Scriptures. Students will learn analytical skills required for narrative interpretation and exegetical analysis.

**Prereq.:** One 2600-level REL course.

**REL 3740 Muslim Thinkers and Mystics 3 s.h.**

Examination of the theological, philosophical, legal, and political writings and ideas of major Muslim thinkers and mystics from the classical through the modern period, covering the continuities and differences.

**Prereq.:** any 2600-level REL course or PHIL 1560.

**Cross listed with** PHIL 3740.

**REL 3743 Reform, Revolt, or Revolution in Islam 3 s.h.**

Critical examination of the movements of change in Islam intended to (1) reassert the primacy of Islamic religious norms in society (reform); (2) challenge the dominant political structures (revolt); or (3) bring about a radical societal change (revolution). The course examines in depth the use of Islamic motifs and symbols in all these movements.

**Prereq.:** REL 2601 or POL 1550 or permission of instructor.

**REL 3744 Islamic Culture and Literature 3 s.h.**

Introduction to the diversity of Muslim culture and literature across the world. Emphasis on classical and premodern literature, art and architecture.

**Prereq.:** any 2600-level REL course.

**REL 3748 Islam and the West 3 s.h.**

Examination of the historical relationship between the and Islamic and Western worlds, as well as their interaction in modern contexts.

**Prereq.:** any 2600-level REL course.

**REL 3750 Religion and Race 3 s.h.**

Examines race theory and its relation to religious studies through consideration of immigration patterns and the ways in which religion has been affixed to markers of identity over the last two hundred years.

**Prereq.:** REL 2601 or SOC 1500 or ANTH 1500.

**Cross-listed:** SOC 3750 and ANTH 3750.

**REL 3751 Liberation Theologies and Revolutionary Change 3 s.h.**

Study of liberation theologies in the Third World and in minority communities in the West, in relation to questions of underdevelopment, poverty, and oppression.

**Prereq.:** REL 2601.

**REL 3753 Religion and Violence 3 s.h.**

Examines the various approaches to explaining religiously justified violence, focusing on examples from the Middle East, South Asia, Southeast Asia, and East Asia. A central element of the course explores the gap between religious ideals and practices and the importance of recognizing that distinction.

**Prereq.:** REL 2601 or POL 1550.

**REL 3754 Feminism, Ecology and Religion 3 s.h.**

Investigation of religious perspectives related to women and nature, the relationship of the sacred to the natural world, scriptural and theological influences, and deep ecology and other environmental movements from a feminist perspective.

**Prereq.:** REL 2601 or REL 2631 or WMST 2601.

**REL 3756 Psychology of Religion 3 s.h.**

Survey of developments in depth psychology that have shaped our understanding of religious experience and spirituality.

**Prereq.:** PSYC 1560 or one 2600-level REL course.

**REL 3799 Intensive Individual Study in Religious Studies 1 s.h.**

Intensive study of a religious studies problem, movement, thinker, or the relationship of religious studies to problems in other disciplines. Intended to be an independent study course with subject matter dependent upon approval of the faculty member and student. May be repeated up to 3 s.h.

**Prereq.:** One 3700 level REL course.

**REL 4810 Directed Readings in Religious Studies 3 s.h.**

Independent study course with subject matter dependent upon approval of the faculty member in consultation with student.

**Prereq.:** Any 3700 level REL course.

**REL 4825 Methods and Study of Religion 3 s.h.**

This course explores the principal methodological issues in the scholarly study of religion and enables students to expand and synthesize disciplinary knowledge.

**Prereq.:** REL 2601.

**REL 4850 Seminar in Religious Studies 3 s.h.**

Study in depth of a particular figure, topic or area in religious studies, as determined by the instructor; may be repeated once with different course content.

**Prereq.:** One 3700-level REL course.

**REL 4860 On-Site Studies in Religion 3-9 s.h.**

An on-site investigation of the beliefs and practices of a particular religion or sect through readings, lectures, interviews, and travel to locations vital to its origin or development.

**Prereq.:** Two 3700-level REL courses.

**REL 4869 Capstone Cooperative Seminar 1 s.h.**

The course aids capstone students in developing and following a schedule for timely completion of a major research project, provides general direction on effective methods for working on such a project, and encourages and facilitates cooperative work among advanced students by providing peers with whom to discuss their ideas, exchange drafts, and provide constructive comments on ongoing written work. Must be taken concurrently with REL 4871.

**REL 4871 Senior Capstone Project 3 s.h.**

Research and writing of a paper, or other committee approved project, on a topic in religious studies, under the supervision of a full-time faculty member and in consultation with a committee of at least two other members of the department.

**Prereq.:** Religious Studies major with senior standing and completion of at least 21 s.h. of REL courses.

## Bachelor of Arts in Philosophy

The mission of the philosophy program is to foster greater understanding and appreciation of the value of philosophical inquiry and the examination of perennial questions about the nature of human experience, the purpose of human endeavors individually and communally, and the value of knowledge. We create diverse educational experiences that develop ethical, intellectually curious students who are invested in their communities. By developing critical, logical, and creative thinking, sound judgment, and effective civil communication, we produce students who can engage their philosophical reasoning in the service of solving real-world problems, attending to the ethical issues and theoretical complexities of purpose, policy, and implementation.

A major in philosophy is ideal for students who plan to enter the field of philosophy, law, professional or medical ethics, the ministry, or other fields requiring a liberal arts background.

The major consists of 31 semester hours, including:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	

CMST 1545	Communication Foundations	
<b>Mathematics Requirement</b>		
Arts and Humanities		6
Natural Sciences (one course must include a lab)		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
<b>Foreign Language Requirement</b>		
<b>Major Requirements</b>		
PHIL 1560	Introduction to Philosophy	3
PHIL 2619	Introduction to Logic	3
PHIL 2612	Ancient & Medieval Philosophy	3
PHIL 3702	History of Modern Philosophy	3
PHIL 3711	General Ethics	3
PHIL 4820	Seminar in Philosophy	3
Philosophy Electives (Three additional courses in Philosophy, 2 of which must be at the 3700-level or 4800-level.)		9
PHIL 4859	Capstone Cooperative Seminar	1
PHIL 4861	Senior Capstone Project	3
<b>Minor</b>		
18		
<b>Electives</b> Must complete a minimum number of electives to meet the 120sh total graduation requirement		
23		
<b>Total Semester Hours</b>		<b>120</b>

This program can be completed in eight semesters if students enroll in 16 hours per semester and enroll in a combination of day and evening classes. The hours for the degree could increase depending upon the student's foreign language placement upon entering YSU.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
PHIL 1560	Introduction to Philosophy	3
CMST 1545	Communication Foundations	3
ENGL 1550	Writing 1	3
Social Science 15XX/26XX		3
FNLG 1550	Elementary Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
PHIL 2612	Ancient & Medieval Philosophy	3
Social Science 15XX/26XX		3
ENGL 1551	Writing 2	3
PHIL 2631	Environmental Ethics	3
FNLG 2600	Intermediate Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
PHIL 2619	Introduction to Logic	3
Natural Science 15xx/26xx		3
Minor 15xx/26xx		3
Social and Personal Awareness 15xx/26xx		3
Elective 15XX/26XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
PHIL 3702	History of Modern Philosophy	3
General Education 26XX		3
Minor 15XX/26XX course		3

Natural Science plus lab 15XX/26XX		4
Elective 15XX/26XX		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
PHIL 3711	General Ethics	3
PHIL Elective		3
Minor 15XX/26XX course		3
Elective 37XX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
PHIL Elective 37XX		3
Minor 37XX course		3
Elective		3
Elective 37XX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
PHIL 4820	Seminar in Philosophy	3
Minor 37XX course		3
Elective		3
Elective 37XX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
PHIL 4861	Senior Capstone Project	3
PHIL 4859	Capstone Cooperative Seminar	1
Minor 37XX course		3
Elective 37XX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>121</b>

## Learning Objectives

- Demonstrated reasoning ability (competently utilize principles of critical thinking, including assessment of definitions, recognition of fallacies, and application of the principles of good inductive and deductive reasoning).
- Demonstrated ability to articulate philosophical ideas and arguments (clarity, nuance, and sophistication of content) and knowledge of seminal figures in history who espouse them.
- Demonstrated ability to engage in charitable reading (willingness to consider alternative and plausible interpretations of an author's work) and to consider arguments from the standpoint and experience of others (suspend one's personal views).
- Master the basics of theoretical writing, including the development of precise definitions, effective analysis of texts, traditions, and theoretical positions, and effective development, defense, and critique of arguments.
- Demonstrated ability to revise beliefs, ideas, and arguments when presented with new sources, criticism, and evidence or to withhold judgment in the absence of reasons (reasonable disagreement and intellectual humility).

# Bachelor of Arts in Philosophy, Pre-Counseling Tracks

## Pre-Counseling Tracks

The pre-counseling tracks in philosophy and in religious studies are designed to provide core knowledge and basic skills to philosophy and religious studies majors who are considering graduate work in counseling, mental health and other service-based professions. Courses are designed to promote:

- self-awareness
- effective decision-making skills
- development of positive character traits
- core knowledge of historical philosophical ideas and religious and cultural practices
- a deep understanding of rights and responsibilities in relationships across a wide range of contexts and settings

The major consists of 31 semester hours, including:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Natural Sciences (one course must include a lab)		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
<b>Foreign Language Requirement</b>		8
<b>Major Requirements</b>		
PHIL 1560	Introduction to Philosophy	3
PHIL 2619	Introduction to Logic	3
PHIL 2612	Ancient & Medieval Philosophy	3
PHIL 3702	History of Modern Philosophy	3
PHIL 3711	General Ethics	3
PHIL 4820	Seminar in Philosophy	3
PHIL 4859	Capstone Cooperative Seminar	1
PHIL 4861	Senior Capstone Project	3
<b>Pre-Counseling Track</b>		
General Education Requirements Prerequisites:		
COUN 1587	Introduction to Health and Wellness in Contemporary Society	3
PSYC 1560	General Psychology	3
Required Electives:		
PSYC 3702	Abnormal Psychology	3
PSYC 3775	Personality	3
PSYC 4800	Introduction to Psychotherapy	3
COUN 2650	Foundations of Helping Skills for Allied Health Professionals	3
<b>Minor</b>		18
<b>University Electives</b> <small>Must complete a minimum number of electives to meet the 120sh total graduation requirement</small>		14
<b>Total Semester Hours</b>		<b>120</b>

This program can be completed in eight semesters if students enroll in 16 hours per semester and enroll in a combination of day and evening classes. The hours for the degree could increase depending upon the student's foreign language placement upon entering YSU.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
PHIL 1560	Introduction to Philosophy	3
CMST 1545	Communication Foundations	3
ENGL 1550	Writing 1	3
Social Science 15XX/26XX		3
FNLG 1550	Elementary Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
PHIL 2608	The Examined Life	3
PSYC 1560	General Psychology	3
ENGL 1551	Writing 2	3
COUN 1587	Introduction to Health and Wellness in Contemporary Society	3
FNLG 2600	Intermediate Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
PHIL 2619	Introduction to Logic or MATH 2623 or Quantitative Reasoning	3
Natural Science 15XX/26XX		3
PHIL 2612	Ancient & Medieval Philosophy	3
Social and Personal Awareness 15XX/26XX		3
PSYC 3702	Abnormal Psychology	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
PHIL 1561	Technology and Human Values	3
PHIL 1565	Critical Thinking or PHIL 2619 or Introduction to Logic	3
PHIL 3702	History of Modern Philosophy	3
Natural Science plus lab 15XX/26XX		4
PSYC 3775	Personality	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
PSYC 4800	Introduction to Psychotherapy	3
PHIL 3711	General Ethics	3
Elective 15XX/26XX		3
Elective 37XX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
COUN 2650	Foundations of Helping Skills for Allied Health Professionals	3
PHIL 3713	Philosophy of the Family	3
Elective 37XX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>12</b>
<b>Year 4</b>		
<b>Fall</b>		
Elective 15XX/26XX		3
Elective 15XX/26XX		3



PHIL 4820	Seminar in Philosophy	3
Elective 37XX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
PHIL 4861	Senior Capstone Project	3
PHIL 4859	Capstone Cooperative Seminar	1
Elective 15XX/26XX		3
Elective 15XX/26XX		3
Elective 37XX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>16</b>
<b>Total Semester Hours</b>		<b>121</b>

## Learning Objectives

### PRE-COUNSELING OBJECTIVES

- The student will competently analyze and critically evaluate his/her own beliefs and the beliefs and traditions of others.
- The student will master the basics of theoretical writing, including the development of precise definitions, effective analysis of texts, traditions, and theoretical positions, and effective development, defense, and critique of arguments.
- The student will exhibit knowledge of religious traditions and rituals, as well as cultural practices, beliefs, and values that guide behavior, decision-making, and social policy, and will demonstrate understanding of this diversity and skill in using this knowledge as a reference for understanding others.
- The student will exhibit a detailed understanding of personal yet timeless questions about spirituality, life after death, ethics, personal relationships, and well-being, and will competently use this knowledge to help others address similar questions and concerns.

## Bachelor of Arts in Religious Studies

**Religious Studies**, also known as Comparative Religion, the Science of Religion, or the academic study of religion, is a part of the human sciences, and it engages in the analysis of cross-cultural religious phenomena. As such, the mission of Religious Studies is to foster critical awareness of the role religion in society, the ways in which people's values and worldviews shape their involvement in the world, such as business, law, and government, and to provide tools for students to track and measure these developments socially and reflectively in themselves.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623 or PHIL 2619	Quantitative Reasoning Introduction to Logic	
Arts and Humanities		6
Recommended choices: REL 2608, REL 2610		
Natural Sciences (Select 2 - one must include lab of any approved GER lab science course)		7
Social Science		6
Social and Personal Awareness		6
Recommended choices: REL 2617, REL 2631		
General Education Elective / First-Year Experience		3
Select one course from AH, NS, SS, or SPA		

Foreign Language (through 2600 unless satisfied by placement exam)		
1550 Language		
2600 Language		
<b>Required Courses for Major (31 s.h. - 22 s.h. must be at the 3700-level or higher)</b>		
Religious Studies Core Courses		
REL 2602	Introduction to Religious Studies	3
REL 4825	Methods and Study of Religion	3
Group A: Select one course from:		
REL 2617	Introduction to Asian Religions	3
REL 3708	African-American Religion	3
REL 3710	African and Neo-African Religion	3
REL 3720	The World of Islam	3
REL 3726	Buddhist Beliefs Practices and Debate	3
REL 3744	Islamic Culture and Literature	3
REL 3748	Islam and the West	3
Group B: Select one course from:		
REL 2611	Judaism Christianity and Islam	3
REL 3732	Jesus and the Gospels	3
REL 3722	Popes Saints and Rebels	3
REL 3731	Hebrew Scriptures	3
REL 3733	Women And the Bible	3
ANTH 4815	Anthropology of Religion	3
JUDC 1500	Introduction to Jewish Studies	3
HIST 3789	Jewish History	3
Analytics - Select one course from two of the analytic groups: 6		
Political Science:		
REL 2610	Global Ethics	
REL 2631	Religion and the Earth	
REL 3743	Reform, Revolt, or Revolution in Islam	
REL 3744	Islamic Culture and Literature	
REL 3751	Liberation Theologies and Revolutionary Change	
REL 3753	Religion and Violence	
HIST 3788	The Holocaust	
Anthropology:		
REL 3728	Hindu Traditions	
ANTH 4815	Anthropology of Religion	
Sociology:		
REL 3750	Religion and Race	
Philosophy:		
REL 2608	The Examined Life	
REL 2621	Religion and Moral Issues	
REL 3712	Philosophy of Religion	
REL 3754	Feminism, Ecology and Religion	
Psychology:		
REL 3756	Psychology of Religion	
Remaining Hours:		
REL 4850	Seminar in Religious Studies	3
REL 4869	Capstone Cooperative Seminar	1
REL 4871	Senior Capstone Project	3
Religious Studies Electives		6
<b>Minor</b>		<b>18</b>
<b>Electives</b> Must complete a minimum number of electives to meet the 120sh total graduation requirement		
Total Degree Hours = 120 s.h.		

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
REL 2602	Introduction to Religious Studies	3
CMST 1545	Communication Foundations	3
ENGL 1550	Writing 1	3
First Year Experience		3
Foreign Language 1550		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
REL 37XX Group A		3
Social Science 15XX/26XX		3
ENGL 1551	Writing 2	3
REL 37XX Group B		3
Foreign Language 2600		4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
PHIL 2619	Introduction to Logic	3
	or MATH 2623 or Quantitative Reasoning	
Natural Science 15XX/26XX		3
Minor 15XX/26XX course		3
Social and Personal Awareness 15XX/26XX		3
Elective 15XX/26XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
REL 37XX Analytics		3
REL 37XX Analytics		3
Minor 15XX/26XX course		3
Natural Science plus lab 15XX/26XX		4
Social and Personal Awareness 15XX/26XX		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
Elective		3
REL Elective		3
Minor 15XX/26XX course		3
Elective 37XX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
REL Elective		3
Minor 37XX course		3
Elective		3
Elective 37XX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
REL 4825	Methods and Study of Religion	3
Minor 37XX course		3
Elective 37XX		3
REL 4850	Seminar in Religious Studies	3
Elective 15XX/26XX		3
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
REL 4871	Senior Capstone Project	3
REL 4869	Capstone Cooperative Seminar	1
Minor 37XX course		3
Elective XXXX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>121</b>

## Learning Objectives

- Students will understand the various approaches to the study of religion under the field that is called Religious Studies. This is accomplished through enrollment in the two core course, "Introduction to Religious Studies," and "Methods and the Study of Religion."
- Students will develop an appreciation of two discrete religious systems to allow for healthy comparisons. This is accomplished by fulfilling the requirement of taking one course from "Class A," which addresses Christian and Jewish traditions, and "Class B," which covers Islamic, Hindu, Buddhist, and African-American traditions.
- Students will accumulate two different methods to study religion. This is accomplished through the enrolment of one course from at least two different analytic groups: anthropology, philosophy, political science, psychology, and sociology.

## Bachelor of Arts in Religious Studies, Pre-Counseling Tracks

### Pre-Counseling Tracks

The pre-counseling tracks in philosophy and in religious studies are designed to provide core knowledge and basic skills to philosophy and religious studies majors who are considering graduate work in counseling, mental health and other service-based professions. Courses are designed to promote:

- self-awareness
- effective decision-making skills
- development of positive character traits
- core knowledge of historical philosophical ideas and religious and cultural practices
- a deep understanding of rights and responsibilities in relationships across a wide range of contexts and settings

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Natural Sciences		6
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
<b>Major Requirements</b>		
REL 2601	Introduction to World Religions	3
REL 2608	The Examined Life	3
<b>History of Religion</b>		
Select two of the following:		6
REL 3708	African-American Religion	

REL 3710	African and Neo-African Religion
REL 3720	The World of Islam
REL 3722	Popes Saints and Rebels
REL 3726	Buddhist Beliefs Practices and Debate
REL 3728	Hindu Traditions
REL 3740	Muslim Thinkers and Mystics
REL 3743	Reform, Revolt, or Revolution in Islam
REL 3744	Islamic Culture and Literature

**Methodologies in the Study of Religion**

Select two of the following: 6

REL 3712	Philosophy of Religion
REL 3750	Religion and Race
REL 3751	Liberation Theologies and Revolutionary Change
REL 3753	Religion and Violence
REL 3754	Feminism, Ecology and Religion
REL 3756	Psychology of Religion
REL 4825	Methods and Study of Religion
ANTH 4815	Anthropology of Religion

**Scriptural Studies**

Select one of the following: 3

REL 3731	Hebrew Scriptures
REL 3732	Jesus and the Gospels
REL 3733	Women And the Bible

**Religious Studies**

All of the following: 7

REL 4850	Seminar in Religious Studies
REL 4869	Capstone Cooperative Seminar
REL 4871	Senior Capstone Project

Select remaining hours in Religious Studies. <sup>1</sup>

**Pre-Counseling Track**

General Education Requirements Prerequisites:

COUN 1587	Introduction to Health and Wellness in Contemporary Society	3
PSYC 1560	General Psychology	3
Required Electives:		
PHIL 1561	Technology and Human Values	3
PSYC 3702	Abnormal Psychology	3
PSYC 3775	Personality	3
PSYC 4800	Introduction to Psychotherapy	3
COUN 2650	Foundations of Helping Skills for Allied Health Professionals	3

Minor 18

University Electives 14

**Total Semester Hours 120**

<sup>1</sup> It is assumed that the remaining hours will be selected in religious studies. In some cases, courses outside religious studies may be accepted as part of the religious studies major if they deepen the student's understanding of religion. All such courses must have the approval of the chair.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
REL 2601	Introduction to World Religions	3
CMST 1545	Communication Foundations	3
ENGL 1550	Writing 1	3
Social Science 15XX/26XX		3

FNLG 1550	Elementary Foreign Language	4
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**Semester Hours 16**

**Spring**

REL 2608	The Examined Life	3
PSYC 1560	General Psychology	3
ENGL 1551	Writing 2	3
COUN 1587	Introduction to Health and Wellness in Contemporary Society	3
FNLG 2600	Intermediate Foreign Language	4

**Semester Hours 16**

**Year 2**

**Fall**

PHIL 2619	Introduction to Logic	3
or MATH 2623	or Quantitative Reasoning	
Natural Science 15XX/26XX		3
Social and Personal Awareness 15XX/26XX		3
PSYC 3702	Abnormal Psychology	3
Select one of the following: 3		
REL 2621	Religion and Moral Issues	3
or PHIL 2625	or Introduction to Professional Ethics	
PHIL 3711	General Ethics	3
or PHIL 3725	or Biomedical Ethics	

**Semester Hours 15**

**Spring**

PHIL 1561	Technology and Human Values	3
REL 2605	Myth, Symbol, and Ritual	3
Natural Science plus lab 15XX/26XX		4
PSYC 3775	Personality	3
Select one of the following: 3		
REL 3708	African-American Religion	3
REL 3720	The World of Islam	3
REL 3722	Popes Saints and Rebels	3
REL 3726	Buddhist Beliefs Practices and Debate	3
ANTH 4815	Anthropology of Religion	3

**Semester Hours 16**

**Year 3**

**Fall**

PSYC 4800	Introduction to Psychotherapy	3
Elective 15XX/26XX		3
REL 4850	Seminar in Religious Studies	3
Elective 37XX		3
Select one of the following: 3		
REL 3751	Liberation Theologies and Revolutionary Change	3
REL 3754	Feminism, Ecology and Religion	3
REL 3756	Psychology of Religion	3

**Semester Hours 15**

**Spring**

COUN 2650	Foundations of Helping Skills for Allied Health Professionals	3
Elective 15XX/26XX		3
Elective 37XX		3
Elective 37XX		3
Select one of the following: 3		
REL 3708	African-American Religion	3
REL 3720	The World of Islam	3
REL 3722	Popes Saints and Rebels	3

REL 3726	Buddhist Beliefs Practices and Debate	3
ANTH 4815	Anthropology of Religion	3
<b>Semester Hours</b>		<b>15</b>

**Year 4****Fall**

Elective 15XX/26XX		3
Elective 15XX/26XX		3
Elective 37XX		3
Elective 37XX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>15</b>

**Spring**

REL 4871	Senior Capstone Project	3
REL 4869	Capstone Cooperative Seminar	1
Elective 15XX/26XX		3
Elective 37XX		3
Elective 37XX		3
<b>Semester Hours</b>		<b>13</b>

**Total Semester Hours** 121

## Learning Objectives

### PRE-COUNSELING OBJECTIVES

- The student will competently analyze and critically evaluate his/her own beliefs and the beliefs and traditions of others.
- The student will master the basics of theoretical writing, including the development of precise definitions, effective analysis of texts, traditions, and theoretical positions, and effective development, defense, and critique of arguments.
- The student will exhibit knowledge of religious traditions and rituals, as well as cultural practices, beliefs, and values that guide behavior, decision-making, and social policy, and will demonstrate understanding of this diversity and skill in using this knowledge as a reference for understanding others.
- The student will exhibit a detailed understanding of personal yet timeless questions about spirituality, life after death, ethics, personal relationships, and well-being, and will competently use this knowledge to help others address similar questions and concerns.

## Minor in Islamic Studies

COURSE	TITLE	S.H.
REL 2601	Introduction to World Religions	3
REL 3720	The World of Islam	3
REL 3740	Muslim Thinkers and Mystics	3
Select 9 s.h. of the following:		9
REL 3743	Reform, Revolt, or Revolution in Islam	
REL 3744	Islamic Culture and Literature	
REL 3748	Islam and the West	
REL 4850	Seminar in Religious Studies (on appropriate topic, requiring approval by the Director of the Center for Islamic Studies)	
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Philosophy

COURSE	TITLE	S.H.
PHIL 1560	Introduction to Philosophy	3
Select at least 6 s.h. from the following:		6
PHIL 1561	Technology and Human Values	

PHIL 1565	Critical Thinking	
PHIL 2619	Introduction to Logic	
PHIL 2625	Introduction to Professional Ethics	
Select at least 3 s.h. from the following:		3
PHIL 2612	Ancient & Medieval Philosophy	
PHIL 3702	History of Modern Philosophy	
Select at least 3 s.h. from the following:		3
PHIL 3711	General Ethics	
PHIL 3719	Symbolic Logic	
Any 3700- or 4800-level course in philosophy		3
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Professional Ethics

COURSE	TITLE	S.H.
PHIL 1560	Introduction to Philosophy	3
PHIL 2625	Introduction to Professional Ethics	3
PHIL 3711	General Ethics	3
Select at least nine s.h. from the following, of which one must be upper level:		9
PHIL 1561	Technology and Human Values	
PHIL 2610	Global Ethics	
PHIL 2626	Engineering Ethics	
PHIL 2627	Law and Criminal Justice Ethics	
PHIL 2628	Business Ethics	
PHIL 2631	Environmental Ethics	
PHIL 2635	Ethics of War and Peace	
PHIL 3725	Biomedical Ethics	
PHIL 3735	Ethics and Scientific Research	
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Religious Studies

COURSE	TITLE	S.H.
REL 2601	Introduction to World Religions	3
REL 4825	Methods and Study of Religion	3
Select four additional Religious Studies courses (12 s.h.), at least one of which (3 s.h.) must be at the 3700-level or 4800-level.		12
<b>Total Semester Hours</b>		<b>18</b>

## Department of Politics and International Relations and Rigelhaupt Pre-Law Center

The Department of Politics and International Relations is housed on the fourth floor of DeBartolo Hall. The professors who make up the department are considered experts in their fields and are often quoted in regional, national, and international publications.

In addition to the Political Science major, students can choose to focus on two additional areas: Public Management or Foreign Affairs. When receiving their degree, students will be given a certificate by the department certifying that they have completed either the Foreign Affairs or the Public Management track described in this Undergraduate Catalog. Four areas of study are offered as minors.

The department includes many programs and student organizations. The Urban Internship Program, Peace and Conflict Studies, the Global Education Program, and the Columbus Internship Program offered in conjunction with

the State Legislature are just four examples of curricular programs. An annual Law Day is organized by the department, which brings in Law School representatives from throughout the country to YSU to discuss admission criteria and answer questions. The department also prepares a Moot Court team each year, which is nationally rated and competes in regional and national tournaments sponsored by the American Collegiate Moot Court Association.

The department is also home to Alpha Alpha Rho, YSU's local chapter of Pi Sigma Alpha, the National Political Science Honor Society.

For more information, please contact the Department of Politics and International Relations at (330) 941-3436.

## Pre-Law

*Pre-Law Advisor: Dr. Paul Sracic*

Pre-Law advisement is available in the Rigelhaupt Pre-Law Center to acquaint students with the various fields of legal practice, which require specialized undergraduate study, and to help students prepare for the law school entrance examination (LSAT).

Law school admission standards generally require an undergraduate point average of at least 3.00 and placement above the 50th percentile in the Law School Admissions Test, which is designed to measure capacity for analytic thought and for precision in the use of language. Regional and national law schools may have more rigorous requirements. Interested students are advised to visit the Law School Admission Council's (LSAC) website.

## Chair

**Paul A. Sracic**, Ph.D., Professor, Chair

## Professor

**Adam L. Fuller**, Ph.D., Assistant Professor

**Cryshanna A. Jackson Leftwich**, Ph.D., Associate Professor

**Keith J. Lepak**, Ph.D., Associate Professor

## Instructor

**Ronald Slipski**, J.D., Instructor

## Majors

- Political Science Major (p. 342)
- Foreign Affairs Track (p. 343)
- Public Management Program (p. 345)

## Minors

- Peace and Conflict Studies Minor (p. 344)
- Political Science Minor (p. 345)
- American Politics Minor (p. 344)
- Foreign Affairs Minor (p. 344)

### POL 1550 Introduction to Political Science 3 s.h.

Study of politics, government, and societal institutions at both national and international levels.

**Gen Ed:** International Perspectives, Social Science, Social and Personal Awareness.

### POL 1550H Honors Introduction to Political Science 3 s.h.

Study of politics, government, and societal institutions at both national and international levels.

**Gen Ed:** International Perspectives, Social Science, Social and Personal Awareness.

### POL 1560 American Government 3 s.h.

The foundations of American democratic government with an emphasis on the responsibilities of citizenship, civil rights, and civil liberties, parties and elections, and American political institutions. Students are encouraged to understand and discuss issues of social justice, equality and freedom, and majoritarianism. Topics include the civil rights movement, campaign finance reform, federalism, and affirmative action.

**Gen Ed:** Social Science.

### POL 2640 Contemporary World Governments 3 s.h.

A comparative analysis of the development of institutions, attitudes, public policy, economic, and social systems of a number of foreign political systems.

**Prereq.:** POL 1550 or POL 1560.

**Gen Ed:** International Perspectives, Social Science, Social and Personal Awareness.

### POL 2660 International Relations 3 s.h.

An examination of theoretical and practical issues in the development of modern international politics, law and organization and political economy, with special attention to contemporary global and regional issues.

**Gen Ed:** International Perspectives, Science Substitute, Social and Personal Awareness.

### POL 2695 Model United Nations 1 s.h.

A comparative study of foreign policy, contemporary global issues, international law, and international governmental organizations. Stresses interactive and role playing educational methodologies. Students are required to participate in one or more approved conference or field trips. May be repeated to a maximum of 3 s.h.

**Prereq.:** Consent of instructor.

### POL 3700 American Presidency 3 s.h.

An examination of the role of the chief executive officer within the governmental framework. The offices of mayor and governor are treated, but the primary emphasis is on critical evaluation of the American presidency.

**Prereq.:** POL 1560.

### POL 3701 American Legislative Process 3 s.h.

An examination of the lawmaking function. Emphasis on the United States Congress, with limited consideration of state and local government legislative practices.

**Prereq.:** POL 1560.

### POL 3702 Law and Society 3 s.h.

The American judicial system, its institutional development and its role in policy determination, as evidenced in leading Supreme Court decisions. Limited coverage of state judicial systems.

**Prereq.:** POL 1560.

### POL 3703 American Constitutional Law 3 s.h.

An inquiry into constitutional interpretation by the Supreme Court based on examination of leading cases, with particular emphasis on questions of federalism, executive power, civil liberties, and economic regulation.

**Prereq.:** POL 3702.

### POL 3704 American Political Parties and Elections 3 s.h.

A descriptive analysis of the role of political parties in a democratic society, with emphasis on development of a theory of party, an examination of the history and characteristics of the American party system, and a quantitatively structured description of the national electorate.

**Prereq.:** POL 1560.

### POL 3706 African-American Politics 3 s.h.

The politics of African Americans within American society in terms of organization, behavior, objectives, relative influence and power.

**Prereq.:** POL 1560 or AFST 2600.

**POL 3707 Moot Court 1 3 s.h.**

An introduction to appellate advocacy through the practical application of legal analysis and synthesis. This course analyzes one or two specific constitutional issues based on pre-determined U.S. Supreme Court cases. Students will analyze and synthesize Supreme Court decisions and present simulated oral argument as if before the U.S. Supreme Court based on those decisions. May be repeated for a maximum of 6 s.h.

**Prereq.:** POL 3702 and consent of chairperson.

**POL 3712 Political Behavior 3 s.h.**

An introduction to the primary research theories, perspectives and methodologies common to the study of government and global affairs, including computerized quantitative analysis.

**Prereq.:** POL 1550 or POL 1560.

**POL 3714 American Public Opinion 3 s.h.**

An introduction to the origins, uses, effects, and analysis of public opinion, including a practicum in opinion polling requiring field work and computerized quantitative analysis.

**Prereq.:** POL 1550 or POL 1560.

**POL 3717 Health Care Policy 3 s.h.**

A comprehensive overview of the American healthcare system. Particular attention given to the design and implementation of the Affordable Care Act.

**Prereq.:** BIO 1545 or EMS 1501 or MATC 2600 or MLT 1501 or AHLT major or POL 1560 or permission of instructor 3 s.

**POL 3718 American Public Policy and Policy Analysis 3 s.h.**

The formation, implementation, and evaluation of contemporary American public policy.

**Prereq.:** POL 1560.

**POL 3720 Public Management 3 s.h.**

A study of administrative organizations in American federal and state governments, with special attention to their role in the formulation and implementation of public policy as demonstrated in case studies.

**Prereq.:** POL 1560.

**POL 3721 Urban Government 3 s.h.**

The structure and politics of urban government, with special attention to intergovernmental relationships.

**Prereq.:** POL 1560.

**POL 3722 State and Local Government 3 s.h.**

The political processes and institutions of state and local governments, with special attention to Ohio government.

**Prereq.:** POL 1560.

**POL 3724 Public Budgeting 3 s.h.**

Study of the politics, theories, and techniques of public budgeting. Includes the process of budget preparation, adoption and execution. Topics include debt management and capital budgets. This course is cross-listed with ECON 3724.

**Prereq.:** POL 3720.

**POL 3725 Individualized Study 1-3 s.h.**

A supervised individual study of a special topic or issue in any area of contemporary politics and political science. An academic plan of study including a syllabus is required and will be placed in the student's file. May be repeated for up to 6 s.h.

**Prereq.:** POL 1560 or POL 2640 or POL 2660, and permission of the chairperson.

**POL 3741 Russia and China: From Revolution to Reform 3 s.h.**

A comparative analysis of politics in the Russian Federal Republic and the People's Republic of China, emphasizing contemporary issues of domestic governance and regional international relations as seen in the context of revolutionary Communism and the appearance of post-Communist reform politics.

**Prereq.:** POL 2640 or POL 2660.

**POL 3742 Political Development and Political Regimes 3 s.h.**

A comparative analysis of political development of selected states, with a focus on the social and political forces that lead to the formation of democracies and dictatorships.

**Prereq.:** POL 2640 or POL 2660.

**POL 3744 European Politics 3 s.h.**

Comparative analysis of the political development, governing systems, political behavior, public policy, and interrelations of selected European states, emphasizing the role of the European Union and the formation of new democracies in Eastern Europe.

**Prereq.:** POL 2640 or POL 2660.

**POL 3751 Latin American Politics 3 s.h.**

A comparative analysis of the political development, governing systems, political behavior, public policy, and international relations of selected Latin American states.

**Prereq.:** POL 2640 or POL 2660.

**POL 3757 Aging and Social Policy 3 s.h.**

Critical examination of the social policies and social systems which affect aging and retirement.

**Prereq.:** SOC 1500, GERO 1501, or POL 1560.

**POL 3760 International Political Economy 3 s.h.**

Study of the relationship between global capitalism and the interstate political system, with emphasis on post-Cold War issues and American policy.

**Prereq.:** POL 2660.

**POL 3761 United States Foreign Policy 3 s.h.**

Examination of the domestic political formulation and international execution of U.S. foreign policy, emphasizing regional issues of security and political economy and the changing U.S. role in the post-Cold War world.

**Prereq.:** POL 2640 or POL 2660.

**POL 3763 International Law 3 s.h.**

Analysis of the principles and formation of international law as it has developed through customs and international agreement.

**Prereq.:** POL 2640 or POL 2660.

**POL 3764 International Organizations 3 s.h.**

Analysis of the development, organizational structure, public policy and political behavior of regional and international organizations, with focus on the United Nations.

**Prereq.:** POL 2640 or POL 2660.

**POL 3767 Asian Politics 3 s.h.**

A comparative analysis of the political development, governing systems, political behavior, public policy, and international relations of selected Asian states, with emphasis on their role in the global economy relative to the U.S.

**Prereq.:** POL 2640 or POL 2660.

**POL 3768 International Conflict 3 s.h.**

Examination of the dynamics of international political conflict, with special attention to issues of the use of force, the nature of ethno-political conflict, and the relative effectiveness of various approaches to negotiation, conflict management, and conflict resolution.

**Prereq.:** POL 2660.

**POL 3785 Political Thought 1 3 s.h.**

The development of western political thought from the time of classical Greece through the Medieval period. Among major figures treated: Plato, Aristotle, Cicero, Augustine, Aquinas, and Machiavelli.

**Prereq.:** 9 s.h. of Political Science.

**POL 3786 Political Thought 2 3 s.h.**

The development of western political thought from the Renaissance to the Modern period. Among the major figures treated: Hobbes, Locke, Rousseau, Burke, Smith, Publius, Tocqueville, and Mill.

**Prereq.:** 9 s.h. of Political Science.

**POL 3787 Political Thought 3 3 s.h.**

The development of western political thought of the 19th and 20th centuries. Among the major figures treated: Hegel, Marx, Nietzsche, Arendt, and Rawls.

**Prereq.:** 9 s.h. of Political Science.

**POL 4801 Senior Research Seminar 3 s.h.**

Investigation and presentation of a research project. Students explore a research topic, using appropriate political science methods, and present their results in oral and written form.

**Prereq.:** 24 hours of political science.

**Gen Ed:** Capstone.

**POL 4805 Public Administration and the Political Process 4 s.h.**

Political factors which condition the structure and function of public agencies, including the public interest, agency constituencies, and political influence.

**Prereq.:** YSU/CSU MPA or permission of chair.

**POL 4810 Urban Internship Seminar 2-4 s.h.**

This course is designed to give students firsthand experience working in the field of public management, government, law, and/or urban public service.

Intern appointments are for one semester. The intern is scheduled for fifteen (15) hours a week in the sponsor agency on a calendar confirmed with the agency supervisor. Interns are responsible to agency supervisors for satisfactory performance, as indicated by the supervisor's signature on the weekly Journal Form, and on the end-of-the-term Summary Sheet.

**Prereq.:** Junior or senior standing; POL 1560; and acceptance into the program by the urban internship coordinator prior to registration.

**POL 4850 Sustainability, Climate Change, and Society 3 s.h.**

Explores environmental, economic, and social aspects of sustainable development, with an emphasis on economy and society. Examines the roles of institutions, humans and policies in sustainable development as well as reconfiguring relationships between our institutions and the natural world. Listed also as ENST 5820.

**Prereq.:** Minimum junior standing.

**POL 5800 Select Problems, American Government 2-4 s.h.**

Seminar/capstone course examining topical issues of American Government.

**Prereq.:** 15 s.h. of Political Science and consent of chairperson.

**POL 5830 Public Human Resource Management 4 s.h.**

The issues and public policies that have an impact on the management of human resources in the public sector. Differences between public and private personnel administration; the American civil service system; recruitment, placement, promotion, training, and compensation; performance assessment; rights and duties of public employees.

**Prereq.:** YSU/CSU MPA or permission of the chair.

**POL 5860 Select Problems of Global Affairs 2-4 s.h.**

Seminar/capstone course examining topical issues of contemporary global affairs and international relations. This course may be repeated once.

**Prereq.:** 15 s.h. of Political Science and consent of chairperson.

**POL 5865 Global Environmental Policy and Law 3 s.h.**

An analysis of the development, foundations, and principles of international environmental policy and law; includes consideration of the relationship between domestic and international environmental law, and the role of international organizations in the implementation of international environmental policy and law.

**Prereq.:** POL 3760, or POL 3742, or ENST 3760.

**POL 5880 Select Problems, Political Thought 2-4 s.h.**

Seminar/capstone course examining selected political issues and ideologies within the context of the broader traditions of political thought.

**Prereq.:** 15 s.h. of Political Science and consent of chairperson.

## Bachelor of Arts in Political Science

### Overview

A major in political science comprises 33 political science semester hours with the requirement that the student complete:

- a minimum of two courses in American Government
- a minimum of two courses from Comparative Government and International Relations
- one Political Thought course

- a capstone course

This degree may be earned in eight semesters if students enroll in 16 hours per semester.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Foreign Language Requirement		8
FNLG 1550	Elementary Foreign Language	
FNLG 2600	Intermediate Foreign Language	
Natural Science		7
Social Science <sup>1560</sup> Fulfills 3 credit hours of Social Science requirement		3
Social and Personal Awareness		6
First-Year Experience Course: LASS 1510 <sup>Exploring Critical Questions in LASS</sup>		3
<b>Major Requirements</b>		
POL 1560	American Government	3
<b>Optional Class</b>		
POL 1550	Introduction to Political Science (Social Science/ Social and Personal Awareness)	
<b>American Government</b>		
Select one of the following:		3
POL 3700	American Presidency	
POL 3701	American Legislative Process	
POL 3702	Law and Society	
POL 3703	American Constitutional Law	
POL 3704	American Political Parties and Elections	
POL 3707	Moot Court 1	
POL 3706	African-American Politics	
POL 3712	Political Behavior	
POL 3714	American Public Opinion	
POL 3717	Health Care Policy	
POL 3718	American Public Policy and Policy Analysis	
POL 3720	Public Management	
POL 3721	Urban Government	
POL 3722	State and Local Government	
POL 3724	Public Budgeting	
POL 3725	Individualized Study	
POL 3757	Aging and Social Policy	
POL 4805	Public Administration and the Political Process	
POL 4850	Sustainability, Climate Change, and Society	
POL 5800	Select Problems, American Government	
POL 5830	Public Human Resource Management	
<b>Political Thought</b>		
Select one of the following:		3
POL 3785	Political Thought 1	
POL 3786	Political Thought 2	
POL 3787	Political Thought 3	
POL 5880	Select Problems, Political Thought	
<b>Contemporary and International</b>		
Select two of the following:		6

POL 2640	Contemporary World Governments (Social Science/ Social and Personal Awareness)	
POL 2660	International Relations	
POL 2695	Model United Nations	
POL 3741	Russia and China: From Revolution to Reform	
POL 3742	Political Development and Political Regimes	
POL 3744	European Politics	
POL 3751	Latin American Politics	
POL 3760	International Political Economy	
POL 3761	United States Foreign Policy	
POL 3763	International Law	
POL 3764	International Organizations	
POL 3767	Asian Politics	
POL 3768	International Conflict	
POL 5860	Select Problems of Global Affairs	
POL 5865	Global Environmental Policy and Law	

<b>Capstone Course</b>		
POL 4801	Senior Research Seminar	3
<b>Additional Required Hours</b>		
Select a minimum of 15 s.h. (total 33 s.h. in Political Science).		15
Electives 24-29 s.h.		24
Minor Requirements		18
<b>Total Semester Hours</b>		<b>120</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
POL 1560	American Government	3
LASS 1510	Exploring Critical Questions in LASS	3
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
FNLG 1550	Elementary Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
POL 2640	Contemporary World Governments	3
POL 2660	International Relations	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
FNLG 2600	Intermediate Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
POL 37XX Domestic Politics		3
POL 37XX Dom. or Intl.		3
Minor 15XX/26XX		3
Natural Science 15XX/26XX		3
Social Science 15XX/26XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
POL 37XX Dom. or Intl		3
POL 37XX Dom. or Intl		3
Minor 15XX/26XX		3
Natural Science + Lab 15XX/2600		4
Social and Personal Awareness 15XX/26XX		3
<b>Semester Hours</b>		<b>16</b>

<b>Year 3</b>		
<b>Fall</b>		
POL 3785	Political Thought 1	3
or POL 3786	or Political Thought 2	
or POL 3787	or Political Thought 3	
POL 37XX Dom. or Intl		3
Minor 37XX		3
Minor 37XX		3
Arts and Humanities 15XX/26XX		3
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
POL 37XX Dom or Intl		3
POL 37XX Dom on Intl		3
Minor 37XX		3
Minor 37XX		3
Arts and Humanities 15XX/26XX		3
<b>Semester Hours</b>		<b>15</b>

<b>Year 4</b>		
<b>Fall</b>		
POL 37XX		3
Minor 37XX		3
Elective		3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
POL 4801	Senior Research Seminar	3
Minor 37XX		3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

The department's learning outcomes for political science majors are as follows:

- Students will be able to summarize fundamental components of knowledge that have developed in relation to areas of political theory, American government, comparative politics, and international relations.
- Students will recognize and explain the fundamental ideas and constitutional principles that have shaped the American Republic, as well as the institutions and behaviors that provide the setting and substance of American politics.
- Students will recognize and explain the basic ideas, problems and processes of comparative politics and international relations relative to issues of Western and non-Western political development, different forms of national government, and foreign policy behaviors relative to a global economy.
- Students will use and apply the Style Manual of the American Political Science Association (APSA) in conjunction with their research and writing skills associated with the creation of credible political science projects.

## Foreign Affairs

The Foreign Affairs Track provides students with a broad background and understanding of international relations and comparative politics. Students study patterns of conflict and cooperation among nations, international organizations, and other international actors while developing a broader



understanding of the problems of governance, justice, economic development, and political stability.

The program is designed to accommodate students seeking careers in such fields as diplomacy, international security, humanitarian and technical assistance, international education, international trade, and public affairs.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Foreign Language Requirement		8
FNLG 1550	Elementary Foreign Language	
FNLG 2600	Intermediate Foreign Language	
Arts and Humanities		6
Natural Science		7
Social Science (Met in Major - POL 1560, ECON 1501)		0
Social and Personal Awareness (Met in Major - HIST 1512, POL 2640)		0
LASS 1510	Exploring Critical Questions in LASS	3
<b>Major Requirements</b>		
Select one course from each of the following:		
<b>Economics</b>		3
ECON 1501	Economics in Action	
For students minoring in Economics, one of the following may be substituted:		
ECON 2610	Principles 1: Microeconomics (For students minoring in Economics)	
ECON 2630	Principles 2: Macroeconomics (For students minoring in Economics)	
<b>Geography</b>		3
GEOG 2626	World Geography	
GEOG 3713	Geography of South America	
GEOG 3715	Geography of Middle America	
GEOG 3717	Geography of Europe	
<b>History</b>		3
HIST 1512	World Civilization from 1500	
<b>Required Political Science Courses</b>		
POL 1560	American Government	3
POL 2640	Contemporary World Governments	3
POL 2660	International Relations	3
One additional Upper-level course in American Government		3
POL 4801	Senior Research Seminar	3
<b>Political Thought</b>		3
Select one of the following:		
POL 3785	Political Thought 1	
POL 3786	Political Thought 2	
POL 3787	Political Thought 3	

#### Upper-Division Courses

Select a total of 15 s.h. from the courses listed below. A minimum of 6 s.h. 15 must be taken from International relations area and a minimum of 6 s.h. from the Comparative Politics area.

#### International Relations

Select 2-3 of the following:

POL 3760	International Political Economy
POL 3761	United States Foreign Policy
POL 3763	International Law

POL 3764 International Organizations

POL 3768 International Conflict

#### Comparative Politics

Select 2-3 of the following:

POL 3741 Russia and China: From Revolution to Reform

POL 3742 Political Development and Political Regimes

POL 3744 European Politics

POL 3751 Latin American Politics

POL 3767 Asian Politics

Electives (Minimum 24)

24

Minor Requirements

18

**Total Semester Hours**

**120**

## Minor in American Politics

COURSE	TITLE	S.H.
POL 1560	American Government	3
Select five of the following:		15
POL 3700	American Presidency	
POL 3701	American Legislative Process	
POL 3702	Law and Society	
POL 3703	American Constitutional Law	
POL 3704	American Political Parties and Elections	
POL 3714	American Public Opinion	
POL 3718	American Public Policy and Policy Analysis	
POL 3722	State and Local Government	
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Foreign Affairs

COURSE	TITLE	S.H.
<b>Required Courses</b>		
POL 1550	Introduction to Political Science	3
POL 2640	Contemporary World Governments	3
or POL 2660 International Relations		
<b>International Relations</b>		
Select one to three courses from the following:		3-9
POL 3760	International Political Economy	
POL 3761	United States Foreign Policy	
POL 3764	International Organizations	
POL 3763	International Law	
POL 3768	International Conflict	
<b>Comparative Politics</b>		
Select one to three courses from the following:		3-9
POL 3741	Russia and China: From Revolution to Reform	
POL 3742	Political Development and Political Regimes	
POL 3744	European Politics	
POL 3751	Latin American Politics	
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Peace and Conflict Studies

The university offers a minor in Peace and Conflict Studies with the advice and approval of the chair of the department in which the student is majoring. The multidisciplinary minor focuses on the historical, geographical, political, cultural, psychological, and philosophical dimensions of human conflict and conflict resolution, emphasizing the cross-cultural and global context of

contemporary conflict situations and approaches to conflict management and resolution.

The following is a list of approved recommended courses for the minor; the minor consists of a minimum of 18 semester hours, of which at least nine must be accumulated from approved upper-division courses (number 3700 and above).

COURSE	TITLE	S.H.
Select a minimum of 18 s.h. from the following recommended courses: 18		
HIST 1512	World Civilization from 1500	
HIST 4860	Select Problems in Transnational History	
REL 2601	Introduction to World Religions	
REL 2617	Introduction to Asian Religions	
GEOG 2626	World Geography	
POL 2660	International Relations	
POL 3768	International Conflict	
PHIL 2635	Ethics of War and Peace	
PSYC 3750	Special Topics in Psychology	
SOC 3708	Political Sociology	
<b>Total Semester Hours</b>		<b>18</b>

Students should consult with the program coordinator in determining the particular composition of the minor.

Students interested in further study in the program may design and pursue an Individualized Curriculum Program (ICP) in consultation with program directors. Currently, Peace and Conflict Studies has an approved ICP that allows interested students to pursue coursework in areas of global and regional studies, communications and dispute resolution, and peace strategies.

The ICP offers the possibility of a comprehensive and focused major and is especially useful to students considering graduate studies or employment with non-profit organizations that need individuals with appropriate backgrounds in conflict resolution and cross-cultural knowledge and skills.

For more information about this minor, contact (330) 941-3437.

## Minor in Political Science

A political science minor will provide the student with a basic understanding of government and social institutions at the national and international level. A minor in Political Science consists of 18 semester hours:

COURSE	TITLE	S.H.
POL 1560	American Government	3
POL 2640 or POL 2660	Contemporary World Governments International Relations	3
Select four upper-division political science courses.		12
<b>Total Semester Hours</b>		<b>18</b>

## Public Management Program

The public management track is designed to provide a broad background in government and economics for students who plan a career in national, state, or local government. The program also gives students exposure to specific skills.

This major is designed to prepare students to directly enter the workforce in the public sector, pursue a master of public administration, and pursue careers in the non-profit sector.

Professional training of public servants contributes to the fulfillment of the Mission of Youngstown State University, which states that the "University and

public service are seen, not only as interrelated, but also as fundamental to endeavors both within and outside the University."

Because of the required area specialty, a minor is not required for this track.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Foreign Language Requirement		8
FNLG 1550	Elementary Foreign Language	
FNLG 2600	Intermediate Foreign Language	
Natural Science		7
Social Science (Met in Major - POL 1560, ECON 2610)		0
Social and Personal Awareness		6
LASS 1510	Exploring Critical Questions in LASS	3
<b>Major Requirements</b>		
POL 1560	American Government	3
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
ECON 3702	Public Finance	3
POL 3718	American Public Policy and Policy Analysis	3
POL 3720	Public Management	3
POL 3722	State and Local Government	3
POL 3724	Public Budgeting	3
POL 4801	Senior Research Seminar	3
ACCT 2602	Financial Accounting	3
SOC 3701	Social Statistics	4
Select one of the following:		3
POL 3785	Political Thought 1	
POL 3786	Political Thought 2	
POL 3787	Political Thought 3	
Select one of the following:		
MGT 3725 or MGT 3750	Fundamentals of Management Managing Individuals in Organizations	3
Select 9 additional credits to define an area specialty. See advisor in the Department of Political Science for details.		9
Electives (Minimum 29 s.h.)		29
<b>Total Semester Hours</b>		<b>120</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
POL 1560	American Government	3
LASS 1510	Exploring Critical Questions in LASS	3
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
FNLG 1550	Elementary Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
POL 2640	Contemporary World Governments	3
POL 2660	International Relations	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3

FNLG 2600	Intermediate Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
Arts and Humanities 15XX26XX		3
Social and Personal Awareness 15XX/26XX		3
ECON 2610	Principles 1: Microeconomics	3
Natural Science 15XX/26XX		3
Social Science 15XX/26XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
POL 3785-87	Political Thought	3
POL 37XX	Domestic or International	3
ECON 2630	Principles 2: Macroeconomics	3
Natural Science + Lab 15XX/26XX		3
Social and Personal Awareness 15XX/26XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
POL 3722	State and Local Government	3
POL 3720	Public Management	3
ACCT 2602	Financial Accounting	3
ECON 3702	Public Finance	3
Arts and Humanities 15XX/26XX		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
POL 3718	American Public Policy and Policy Analysis	3
Social Science 15XX		3
MGT 3725	Fundamentals of Management <sup>OR</sup> MGT 3750 Human Behavior in Organization	3
SOC 3701	Social Statistics	4
Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
POL 3724	Public Budgeting	3
POL 4810	Urban Internship Seminar	2-4
Specialty XXXX		3
Specialty XXXX		3
Specialty XXXX		3
<b>Semester Hours</b>		<b>14-16</b>
<b>Spring</b>		
POL 4801	Senior Research Seminar	3
Elective		3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>119-121</b>

## Department of Psychology

Welcome to the Psychology Department

Psychology is a great major! The Bachelor of Arts Program in Psychology is the largest major in the College of Liberal Arts and Social Sciences, and one of the most popular at YSU because an understanding of human behavior is essential for most professions and careers.

The Bachelor of Arts degree may be appropriate for students seeking:

- a general liberal arts degree
- paraprofessional employment
- preparation for graduate study in psychology

We have faculty who teach all major specialties of the field including clinical, personality, learning, cognitive, developmental, physiological, health, and social psychology.

As the theme of the Psychology Department is *Student and Community Success*, faculty members conduct research into topics such as resilience and protective factors; mental and physical health, wellness, and fitness; learning persistence; motivation; personal beliefs; and developing critical thinking.

We are unique because we

- are focused upon student success,
- have small classes that are mostly taught by full-time faculty members,
- conduct personal advising,
- inspire students to participate in research opportunities with faculty,
- encourage student engagement through study-abroad experiences, traveling to conferences, joining Psi Chi, and doing fieldwork / internship placements.

For more information, visit the Department of Psychology (<http://www.ysu.edu/academics/college-liberal-arts-social-sciences/psychology-major>) or call (330) 941-3401

*The Bachelor of Arts in psychology can be earned in eight semesters if students average 15-16 hours per semester. Psychology majors must select an official minor as listed in the Undergraduate Catalog.*

### Chair

**Jeffrey T. Coldren**, Ph.D., Professor, Chair

### Professor

**Jaelyn Farris**, Ph.D., Assistant Professor

**Stephen R. Flora**, Ph.D., Professor

**Karen Giorgetti**, Ph.D., Associate Professor

**James Juergensen**, Ph.D., Assistant Professor

**Matthew Lindberg**, Ph.D., Assistant Professor

**Michael Raulin**, Ph.D., Assistant Professor

**Sharon A. Stringer**, Ph.D., Professor

**Ying Joy Tang**, Ph.D., Assistant Professor

### Instructor

**Swati Sethi**, M.A., Instructor

## Majors

- BA in Psychology (p. 349)
- BA in Psychology - Pre-Physical Therapy (p. 350)

## Minors

- General Psychology Minor (p. 351)
- Developmental Psychology Minor (p. 351)
- Psychology of Mental Health Minor (p. 351)

**PSYC 1560 General Psychology 3 s.h.**

An examination of scientific and clinical approaches to understanding the relationships between one's physical, mental, and emotional well-being, and quality of life, including the basic principles governing the growth and maintenance of behavior, emotion, and cognition.

**Gen Ed:** Social Science.

**PSYC 1560H Honors General Psychology 3 s.h.**

An examination of scientific and clinical approaches to understanding the relationships between one's physical, mental, and emotional well-being, and quality of life, including the basic principles governing the growth and maintenance of behavior, emotion, and cognition.

**Gen Ed:** Social Science.

**PSYC 2617 Research Methods for Psychology 3 s.h.**

An introduction to psychological research methods. Students learn how to conduct ethical research and report their findings as well as to critically evaluate the research of others.

**Prereq.:** "C" or better in PSYC 1560, psychology major or minor, or consent of instructor.

**PSYC 2618 Statistics for Psychology 4 s.h.**

Further exploration of psychological research methods and statistical analysis, with emphasis on descriptive and inferential techniques. Three hours of lecture, two hours of lab per week.

**Prereq.:** "C" or better in PSYC 2617 and psychology major, or consent of instructor.

**PSYC 2692 Human Sexuality 3 s.h.**

An interdisciplinary approach to the study of human sexuality. Listed also as PHLT 2692.

**Gen Ed:** Well Being, Social and Personal Awareness.

**PSYC 3700 Social Psychology 3 s.h.**

Examination of the influence of social interactions on the thoughts, feelings, and behaviors of the individual and the group.

**Prereq.:** PSYC 1560.

**Gen Ed:** Social Science.

**PSYC 3700H Honors Social Psychology 3 s.h.**

Examination of the influence of social interactions on the thoughts, feelings, and behaviors of the individual and the group.

**Prereq.:** PSYC 1560.

**Gen Ed:** Social Science.

**PSYC 3700L Social Psychology Laboratory 1 s.h.**

An introduction to planning and conducting social psychological research. Topics include creating participant impact while minimizing loss of control, reducing demand characteristics and experimenter bias, and enhancing mundane and experimental realism. Two hours per week.

**Prereq.:** PSYC 2617 with grade of "C" or better and PSYC 3700 or PSYC 3700H (may be taken concurrently).

**PSYC 3702 Abnormal Psychology 3 s.h.**

Patterns of deviant behavior, including current systems of classification; classic syndromes; the nature and trend of major maladjustments; possible causative factors; and methods of prevention and treatment.

**Prereq.:** PSYC 1560.

**PSYC 3702H Honors Abnormal Psychology 3 s.h.**

Patterns of deviant behavior, including current systems of classification; classic syndromes; the nature and trend of major maladjustments; possible causative factors; and methods of prevention and treatment.

**Prereq.:** PSYC 1560.

**PSYC 3702L Abnormal Psychology Laboratory 1 s.h.**

An introduction to conducting research on psychological disorders, to include a critical review of research literature, examination of case studies, and gathering field-based data. Two hours per week.

**Prereq.:** PSYC 2617 with grade of "C" or better and 3702 or PSYC 3702H (may be taken concurrently).

**PSYC 3705 Psychology of Learning 3 s.h.**

A study of the learning process with emphasis on factors such as reinforcement, respondent conditioning, discrimination, generalization, transfer, etc.; an introduction to modern learning theory.

**Prereq.:** PSYC 2617; Must be taken concurrent with PSYC 3705L.

**PSYC 3705L Psychology of Learning Laboratory 1 s.h.**

Laboratory studies of learning processes. Students use observational and data-recording techniques relevant to investigations of learning processes. Laboratory activities include investigations of classical conditioning, reinforcement, shaping, extinction, practice effects or other phenomena. Two hours per week.

**Prereq.:** Must be taken concurrently with PSYC 3705.

**PSYC 3707 Psychology of Intimate Relationships 3 s.h.**

Psychological principles pertaining to intimate relationships, both marital and non-marital, and family dynamics. Includes topics such as communication, problem solving, domestic violence, and sexuality.

**Prereq.:** PSYC 1560.

**Gen Ed:** Well Being, Social and Personal Awareness.

**PSYC 3709 Psychology of Education 3 s.h.**

Principles of psychology as applied to the educational process, including characteristics of the individual learner, the classroom, the instructor, methods and techniques, and other factors in the learning process.

**Prereq.:** PSYC 1560.

**PSYC 3709L Psychology of Education Lab 2 s.h.**

Application of principles of psychology in a K-12 educational setting. Evaluation and synthesis of psychological principles, theories, and research. Three hours per week, one hour to be arranged.

**Prereq.:** PSYC 1560.

**Concurrent:** PSYC 3709 or consent of instructor.

**PSYC 3710 Psychophysiology 3 s.h.**

An introduction to the relationship between the psychological and physiological basis of behavior. Response systems, such as cardiovascular, respiratory, and gastrointestinal, as well as applications of principles and theories.

**Prereq.:** PSYC 2617, concurrent with PSYC 3710L.

**PSYC 3710L Psychophysiology Laboratory 1 s.h.**

Measurement and research techniques in basic and applied psychophysiology. Two hours laboratory-discussion.

**Prereq.:** Must be taken concurrently with PSYC 3710.

**PSYC 3712 Industrial/Organizational Psychology 3 s.h.**

Principles of psychology applied to business and industry with emphasis upon both personnel and organizational behavior. Topics include job analysis, selection, performance appraisal, organizational development, job satisfaction, motivation, and leadership.

**Prereq.:** PSYC 2617 or equivalent.

**PSYC 3724 Advanced Statistical Methods in Psychology 3 s.h.**

A continuation of inferential statistics: complex analysis of variance and nonparametric statistics; additional study of special correlational techniques and concepts of regression and prediction, Recommended for the student preparing to seek an advanced degree.

**Prereq.:** "C" or better in PSYC 2618.

**PSYC 3728 Physiological Psychology 3 s.h.**

The structural-functional relationships of the various divisions of the neural system, their relationship to the organism as a whole, and their contributions to human behavior.

**Prereq.:** PSYC 2617.

**PSYC 3728L Physiological Psychology Laboratory 1 s.h.**

An introduction to experimental methods for studying effects of environmental stimuli on brain function and behavior in animals. Two hours per week. Permit required.

**Prereq.:** PSYC 2617 with grade of "C" or better and PSYC 3728 (may be taken concurrently).

**PSYC 3730 Psychology of Women 3 s.h.**

An exploration of psychological research and theories as they apply to girls and women. A critical examination of gender similarities and differences.

**Prereq.:** PSYC 1560.

**PSYC 3730L Psychology of Women Laboratory 1 s.h.**

Laboratory and field-based research techniques relating to the study of women and to gender similarities and differences. Two hours per week.

**Prereq.:** PSYC 2617 with grade of "C" or better and PSYC 3730 (may be taken concurrently).

**PSYC 3734 ABA Principles 1: Applied Behavior Analysis 3 s.h.**

Scientific and conceptual foundations of applied behavior analysis. Basic principles of behavior analysis and application in applied settings are emphasized. The behavioral approach is contrasted with other approaches to the understanding and treatment of behavior, with a focus on scientific criteria and methodological differences. Ethical standards are covered.

**Prereq.:** PSYC 1560.

**PSYC 3740 Psychological Measurement 3 s.h.**

Theories and principles of test construction, and an overview of psychological tests and questionnaires use in mental health, educational, and vocational settings.

**Prereq.:** PSYC 2618.

**PSYC 3740L Psychological Measurement Laboratory 1 s.h.**

Application of psychological measurement techniques, test construction, and psychometric analyses. Optional lab, but must be taken concurrently with PSYC 3740.

**Prereq.:** PSYC 2618.

**PSYC 3750 Special Topics in Psychology 3 s.h.**

Selected areas of study not covered in the mainstream curriculum. May be repeated with different topics to a maximum of 9 s.h. toward the major.

**Prereq.:** PSYC 1560.

**PSYC 3755 Child Development 3 s.h.**

Foundations of human development from conception through approximately the first decade of life. Fundamental issues of developmental processes in biological, cognitive, and social-emotional domains and their broader implications for society and later development of the individual.

**Prereq.:** PSYC 1560.

**Gen Ed:** Social Science.

**PSYC 3755L Child Development Laboratory 1 s.h.**

Experimental and nonexperimental research methods for gathering data on the development of children. Two hours per week. A criminal background check is required to take the course.

**Prereq.:** PSYC 2617 with "C" or better and PSYC 3755 (may be taken concurrently).

**PSYC 3756 Adolescent Development 3 s.h.**

Human development from preteen to young adulthood.

**Prereq.:** PSYC 1560.

**PSYC 3756H Honors Adolescent Development 3 s.h.**

Human development from preteen to young adulthood.

**Prereq.:** PSYC 1560.

**PSYC 3757 Adult Development 3 s.h.**

Human development from adulthood through old age.

**Prereq.:** PSYC 1560.

**PSYC 3758 Lifespan Development 3 s.h.**

Study of theory and research on development from conception to death. Focus upon psychological, physiological, social and cultural influences. May not be taken for credit if the student has received credit for two or more of PSYC 3755, PSYC 3756, PSYC 3757.

**Prereq.:** PSYC 1560.

**Gen Ed:** Social Science, Well Being, Social and Personal Awareness.

**PSYC 3760 Perception 3 s.h.**

Theories and experimental evidence on how environmental, physiological, and personal factors influence the reception, organization, and interpretation of sensory input.

**Prereq.:** PSYC 2617; Must be taken concurrent with 3760L.

**PSYC 3760L Perception Laboratory 1 s.h.**

Laboratory demonstrations and experiments using research techniques in perception. Two hours per week.

**Concurrent:** PSYC 3760.

**PSYC 3761 Cognition 3 s.h.**

Experimental methods, research findings, and current theories concerned with human cognitive processes. The information-processing approach, focusing on how information is transformed, stored, manipulated, and retrieved.

Topics include attention, pattern recognition and categorization, memory, and language.

**Prereq.:** PSYC 2617; Must be taken concurrent with PSYC 3761L.

**PSYC 3761L Cognition Laboratory 1 s.h.**

Laboratory demonstrations and experiments using research techniques in cognition. Two hours per week.

**Prereq.:** Must be taken concurrently with PSYC 3761.

**PSYC 3763 Comparative Psychology 3 s.h.**

The variety of behaviors within the animal world are compared and contrasted with human behaviors.

**Prereq.:** PSYC 2617.

**PSYC 3770 Individual Study 1-2 s.h.**

Individual study of a special problem, or a review of the literature relating to a specific psychological problem or issue. A written report is required, one copy of which remains on file in the department. May be repeated for a maximum of 4 s.h. with different problems.

**Prereq.:** PSYC 1560 and consent of the chairperson.

**PSYC 3775 Personality 3 s.h.**

A critical overview of the major personality theories and theorists in the field of psychology, their application to the understanding of everyday life and a description of the pertinent research applicable to the evaluation of personality theories.

**Prereq.:** PSYC 1560.

**PSYC 3777 Cross-Cultural Social Psychology 3 s.h.**

A psychological examination of the impact of culture on individual social behavior as applied to topics such as attribution, moral reasoning, gender differences, and group dynamics.

**Prereq.:** PSYC 3700.

**PSYC 3779 Careers in Psychology 3 s.h.**

Overview of professional development, including information on career preparation, job search strategies, and graduate studies.

**Prereq.:** PSYC 1560.

**PSYC 3780 Psychological Aspects of Disease and Death 3 s.h.**

The primary factors affecting an individual's attitude toward illness, bereavement, and mortality. The psychological and physiological aspects of disease processes and death.

**Prereq.:** PSYC 1560.

**PSYC 3785H Honors Seminar in Psychology 1 s.h.**

Study of selected topics within psychology suitable to the honors program.

**Prereq.:** Admission to the Psychology Honors Program, permit required.

**PSYC 3790 Field Work in Psychology 3 s.h.**

Exploration of different types of work and issues encountered in professional positions within the field of psychology. Supervised field work hours (approximately 4 hours per week) will be arranged. Criminal background check required. May be repeated one time.

**Prereq.:** 9 s.h. in Psychology, junior/senior standing, and consent of chair.

**PSYC 4800 Introduction to Psychotherapy 3 s.h.**

A critical overview of major psychotherapeutic approaches to mental health including an evaluation of empirical validity. Students will develop an increased sensitivity to multicultural and ethical issues.

**Prereq.:** PSYC 3702 or PSYC 3775.

**PSYC 4815 Health Psychology 3 s.h.**

Psychosocial factors that affect the promotion and maintenance of health, as well as the prevention and treatment of illness.

**Prereq.:** 6 s.h. of 3700-level PSYC courses.

**PSYC 4835 Special Topics in Developmental Psychology 3 s.h.**

Advanced and specialized topics in developmental psychology. Topics vary over semesters, and may include the study of infancy, the development of exceptional children, cross-cultural developmental psychology, among others. May be repeated with different topics to a maximum of 6 s.h. toward the major.

**Prereq.:** PSYC 3755 or PSYC 3756 or PSYC 3757 or PSYC 3758.

**PSYC 4841 History of Psychology 3 s.h.**

The development of scientific psychology, with major emphasis on trends since the mid-19th century.

**Prereq.:** 9 s.h. of psychology.

**PSYC 4850 Seminar 2 s.h.**

Major topics in psychology not covered in listed courses. Two s.h. may be applied to the psychology major.

**Prereq.:** Senior standing in psychology, or consent of instructor.

**PSYC 4857 Biopsychological Aspects of Health and Aging 3 s.h.**

Broad overview of development and change across the adult lifespan, focusing on an examination and understanding of biological aging and how they affect functioning, adjustment, and wellness. Distinction between primary aging (normal, universal biological changes) and secondary aging (disease, lifestyle-determined changes) will be made.

**Prereq.:** PSYC 3757 or PSYC 3758.

**PSYC 4860 Motivation 3 s.h.**

Classical and contemporary theories of motivation. Overview of research and theory on the interactive role of biological, learned, and cognitive components in motivation of human behavior, including emotion, need for achievement, affiliation, and power.

**Prereq.:** PSYC 2618.

**PSYC 4890 Senior Thesis 1 s.h.**

Data collection and a research paper on a topic approved by the thesis advisor. This project takes two semesters to complete. Must be repeated for a maximum of 2 s.h.

**Prereq.:** Senior status, grade of "C" or better in PSYC 2618, one PSYC lab course, & consent of thesis advisor & chair.

**Gen Ed:** Capstone.

**PSYC 4891H Honors Thesis 1 s.h.**

The student prepares an empirical research paper on a topic approved by an honors thesis advisor and honors thesis committee. May be repeated for a maximum of 4 s.h.

**Prereq.:** Senior status, C or better in PSYC 2618, one PSYC lab course, consent of thesis advisor & chair, and admission into the Honors Program.

**Gen Ed:** Capstone.

**PSYC 4895 Senior Psychology Capstone Experience 2 s.h.**

A capstone experience for the major in psychology.

**Prereq.:** Senior status, grade of "C" or better in PSYC 2618, one PSYC lab course, and consent of thesis advisor and chair.

**Gen Ed:** Capstone.

# Bachelor of Arts in Psychology

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
<b>Core Competencies</b>		
ENGL 1550	Writing 1	12

ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
<b>Mathematics Requirement</b>		
Arts and Humanities		6
Natural Sciences		7
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
<b>Foreign Language Requirement</b>		
FNLG 1550	Elementary Foreign Language	4
FNLG 2600	Intermediate Foreign Language	4
<b>Major Requirements</b>		
PSYC 1560	General Psychology	3
PSYC 2617	Research Methods for Psychology	3
PSYC 2618	Statistics for Psychology	4
<b>Clinical</b>		
PSYC 3702	Abnormal Psychology	3
or PSYC 3775	Personality	
<b>Social/Developmental</b>		
Only two development courses may count towards the major.		
Select at least one of the following:		3
PSYC 3700	Social Psychology	
PSYC 3755	Child Development	
PSYC 3756	Adolescent Development	
PSYC 3757	Adult Development	
PSYC 3758	Lifespan Development	
<b>Learning/Perception/Cognition</b>		
Select at least one of the following:		3-4
PSYC 3705	Psychology of Learning	
PSYC 3760 & 3760L	Perception and Perception Laboratory	
PSYC 3761 & 3761L	Cognition and Cognition Laboratory	
<b>Physiological</b>		
Select at least one of the following:		3-4
PSYC 3710 & 3710L	Psychophysiology and Psychophysiology Laboratory	
PSYC 3728	Physiological Psychology	
<b>Capstone Course</b>		
Required - Select one of the following:		2
PSYC 4890	Senior Thesis (repeated for 2 s.h.)	
PSYC 4891H	Honors Thesis (repeated for 2 s.h.)	
PSYC 4895	Senior Psychology Capstone Experience	
<b>Additional Courses</b>		
Select 9 hours in courses applicable to the psychology major, excluding PSYC 3770 or PSYC 3790.		9
Select 3 hours in any course applicable to the major.		3
<b>Minor Requirement</b>		18
<b>Electives</b>		18
<b>Total Semester Hours</b>		<b>120-122</b>

Two laboratories related to any psychology course are required.

Note: Remedial coursework needs to be taken first and will most likely require students to attend summer sessions in order to complete a BA in Psychology within four years.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
PSYC 1560	General Psychology (Social Science)	3
ENGL 1550	Writing 1	3
First-Year Experience / GER Elective		3
MATH 2623	Quantitative Reasoning	3
FNLG 1550	Elementary Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
PSYC 26XX/37XX	Social and Personal Awareness (e.g. PSYC 3707)	3
Natural Science 15XX/26XX		3
ENGL 1551	Writing 2	3
Arts/Humanities 15XX/26XX		3
FNLG 2600	Intermediate Foreign Language	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
PSYC 2617	Research Methods for Psychology	3
Arts/Humanities 15XX/26XX		3
Minor 15XX/26XX course		3
CMST 1545	Communication Foundations	3
PSYC/Social Science 37XX	(e.g. PSYC 3700)	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
PSYC 2618	Statistics for Psychology	4
Natural Science + Lab 15XX/26XX		4
Minor 15XX/26XX/37XX course		3
PSYC/Social and Personal Awareness 26XX/37XX	(e.g. PSYC 3758)	3
PSYC/Gen Ed 26XX/37XX	Elective (e.g. PSYC 2692 or PSYC 3755)	3
<b>Semester Hours</b>		<b>17</b>
<b>Year 3</b>		
<b>Fall</b>		
PSYC 37XX	Clinical (e.g. PSYC 3702 or PSYC 3775)	3
PSYC 37XX	Physiological	3
PSYC 37XX	Lab	1
PSYC 37XX	elective	3
Minor 37XX course		3
Elective 15XX/26XX/37XX (rec. major or minor - 37XX course)		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
PSYC 37XX	Cognition, Learning, or Perception	3
PSYC 37XX	Lab	1
PSYC 37XX	Elective	3
Minor 37XX course		3
Minor 37XX course		3
Elective 37XX course (rec. major or minor - 37XX course)		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
PSYC 37XX	Elective	3
PSYC 37XX	Elective	3
Minor 37XX/48XX course		3
Elective 37XX		3
<b>Semester Hours</b>		<b>12</b>

<b>Spring</b>		
PSYC 4895	Senior Psychology Capstone Experience	2
Minor 37XX/48XX course (if needed, otherwise elective)		3
PSYC 37XX	Elective	3
Elective XXXX		3
Elective XXXX		3
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>122</b>

## Learning Outcomes

1. Students will discriminate amongst the fundamental psychological concepts.
2. Students will demonstrate the ability to clearly communicate ideas in both oral & written forms using APA style.
3. Students will evaluate research using professionally accepted criteria.
4. Students will devise solutions to real-life problems by applying psychological concepts.
5. Students will interpret topics and discussions related to human diversity.

## Bachelor of Arts in Psychology - Pre-Physical Therapy Track

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Natural Sciences		6
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
Foreign Language Requirement		
FNLG 1550	Elementary Foreign Language	4
FNLG 2600	Intermediate Foreign Language	4
<b>Major Requirements</b>		
PSYC 1560	General Psychology	3
PSYC 2617	Research Methods for Psychology	3
PSYC 2618	Statistics for Psychology	4
PSYC 3702	Abnormal Psychology	3
<b>Social/Developmental</b>		
Only two developmental courses may count towards the major.		
Select at least one course from the following:		3
PSYC 3700	Social Psychology	
PSYC 3755	Child Development	
PSYC 3756	Adolescent Development	
PSYC 3757	Adult Development	
PSYC 3758	Lifespan Development	
<b>Learning/Perception/Cognition</b>		
Select at least one course from the following:		3
PSYC 3705	Psychology of Learning	
PSYC 3760	Perception	
PSYC 3761	Cognition	
<b>Physiological</b>		

PSYC 3710	Psychophysiology	3
or PSYC 3728	Physiological Psychology	
Select two laboratories attached to any psychology course.		2
<b>Capstone Course</b>		
PSYC 4890	Senior Thesis	2
or PSYC 4895	Senior Psychology Capstone Experience	
<b>Additional Courses</b>		
Select an additional 9 hours in courses applicable to the psychology major, excluding PSYC 3770 or PSYC 3790.		9
Select any course applicable to the major.		3
<b>Biology Minor</b>		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	4
Select one of the following:		3-5
Upper-division Elective		
If admitted to the PT program:		
BIOL 5868 & 5868L	Gross Anatomy 1 and Gross Anatomy 1 Laboratory (if admitted to the PT program)	
BIOL 5869	Gross Anatomy 2	
<b>Support Courses</b> 23		
With admission to the PT program:		
CHEM 1515	General Chemistry 1	
CHEM 1515L	General Chemistry 1 Laboratory	
CHEM 1515R	Recitation for General Chemistry 1	
CHEM 1516	General Chemistry 2	
CHEM 1516L	General Chemistry 2 Laboratory	
CHEM 1516R	Recitation for General Chemistry 2	
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1	
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2	
<b>Total Semester Hours</b>		<b>123-1:</b>

## Minor in Developmental Psychology

COURSE	TITLE	S.H.
PSYC 1560	General Psychology	3
PSYC 2617	Research Methods for Psychology <sup>1</sup>	3
PSYC 3755	Child Development	3
PSYC 3756	Adolescent Development	3
PSYC 3757	Adult Development	3
An additional 3 s.h. in Psychology from PSYC 2618 or any upper division course.		3
<b>Total Semester Hours</b>		<b>18</b>

<sup>1</sup> A research methods course from another department may be substituted for PSYC 2617 Research Methods for Psychology if approved by the Psychology Department. A student who does not take PSYC 2617 Research Methods for Psychology must take an additional 3 s.h. in psychology to meet requirements for the minor.

## Minor in General Psychology

COURSE	TITLE	S.H.
PSYC 1560	General Psychology	3
PSYC 2617	Research Methods for Psychology	3
PSYC 3700	Social Psychology	3
PSYC 3734	ABA Principles 1: Applied Behavior Analysis	3
PSYC 3702	Abnormal Psychology	3
or PSYC 3775	Personality	
Select one of the following:		3
PSYC 3755	Child Development	
PSYC 3756	Adolescent Development	
PSYC 3757	Adult Development	
PSYC 3758	Lifespan Development	
<b>Total Semester Hours</b>		<b>18</b>

<sup>1</sup> A research methods course from another department may be substituted for PSYC 2617 Research Methods for Psychology if approved by the Psychology Department. A student who does not take PSYC 2617 Research Methods for Psychology must take an additional 3 s.h. of upper division coursework in psychology to meet requirements for the minor.

## Minor in Psychology of Mental Health

COURSE	TITLE	S.H.
PSYC 1560	General Psychology	3
PSYC 2617	Research Methods for Psychology	3
PSYC 3702 & 3702L	Abnormal Psychology and Abnormal Psychology Laboratory	4
PSYC 3775	Personality	3
PSYC 4800	Introduction to Psychotherapy	3
<b>Electives</b>		
Select one of the following:		3
PSYC 3707	Psychology of Intimate Relationships	
PSYC 3730	Psychology of Women	
PSYC 3734	ABA Principles 1: Applied Behavior Analysis	
PSYC 3755	Child Development	
PSYC 3790	Field Work in Psychology	
<b>Total Semester Hours</b>		<b>19</b>

<sup>1</sup> A research methods course from another department may be substituted for PSYC 2617 Research Methods for Psychology if approved by the Psychology Department. A student who does not take PSYC 2617 Research Methods for Psychology must take an additional 3 s.h. in psychology to meet requirements for the minor.

## Department of Sociology, Anthropology, and Gerontology

Welcome to the Department of Sociology, Anthropology, and Gerontology. We are located on the fourth floor of DeBartolo Hall in room 444 and our department phone number is 330-941-3442.

We offer BA degrees in Anthropology, Gerontology, and Sociology, a BSAS degree in Long Term Care Administration, and an MA in Gerontology. We also offer a certificate in Gerontology and minors in seven different areas, including Archaeology, Forensic Anthropology, and others. All of our programs are hands-on, offering students opportunities for internships, fieldwork, and study abroad so that they emerge well-qualified to pursue graduate degrees and rewarding careers.



## SOCIOLOGY

Sociology is the scientific study of society, human social relationships, and social institutions. At the core of sociology is the sociological imagination – a need to make the familiar strange and look beyond what is normally taken-for-granted to more nuanced understandings of social life. Much like society itself, sociological investigations are diverse, covering everything from the analysis of strangers interacting on the street to global social movements. The Sociology Program at YSU gives students a broad education in the field of sociology, emphasizing contemporary issues related to inequality, social institutions, gender and the family, deviance and criminology, aging, and research. Students learn how to think critically about human social life, seek answers to research questions, and help others understand how society works and how we might improve it. Our students have the opportunity to intern with a number of local and regional organizations, such as the Northeast Ohio Coalition Against Human Trafficking and Compass Community and Family Services.

## ANTHROPOLOGY

Anthropology is the cultural and biological study of humankind. It is a discipline that asks such questions as, “What makes us human?” “How did we develop biologically and culturally?” “Where did we come from and where are we going?” Through the study of Archaeology, Biological Anthropology, and Cultural Anthropology at YSU, students explore these questions and the ways in which we begin to answer them. Students are broadly trained in the discipline and emerge well-trained to pursue graduate degrees and careers in and related to anthropology. The program offers numerous opportunities to work with materials in the classroom and lab, including osteological and faunal remains and artifacts. Our students participate on faculty-led archaeological class projects in Guatemala, the Bahamas, and in northeast Ohio and have joined anthropological field schools in Belize, Canada, South Africa, Cypress, and elsewhere.

## GERONTOLOGY

Gerontology is the study of aging and the related issues of aging through interdisciplinary perspectives. The YSU Gerontology Program provides access to innovative internship opportunities that align with coursework to better assist older individuals, starting with our older adults living in the Mahoning Valley. We require internships and have partnered with over 30 organizations. Our courses also offer community based projects with the Mahoning County Probate Court and the Area Agency on Aging XI.

## LONG-TERM CARE ADMINISTRATION (LTCA)

The LTCA program prepares students to work in any part of the spectrum of long-term care services and supports. Settings include home and community-based care, assisted living, skilled nursing, and continuing care retirement community. Students in the YSU LTCA programs are supported to actively pursue projects and internships regarding the multifaceted dimensions pertaining to LTCA.

## Chair

**Matt O'Mansky**, Ph.D., Associate Professor, Chair

## Professor

**Amanda Fehlbaum**, Ph.D., Assistant Professor

**Paul B. Gordiejew**, Ph.D., Associate Professor

**Tiffany F. Hughes**, Ph.D., Assistant Professor

**Qi Jiang**, Ph.D., Professor

**Loren R. Lease**, Ph.D., Associate Professor

**Denise A. Narcisse**, Ph.D., Associate Professor

**Gregory C. Rocheleau**, Ph.D., Assistant Professor

**Daniel J. Van Dussen**, Ph.D., Associate Professor

## Majors

- BA in Sociology (p. 360)
- BA in Anthropology (p. 357)
- BA in Gerontology (p. 358)
- BSAS in Long Term Care Administration (p. 361)

## Minors

- Sociology Minor (p. 364)
- Gerontology Minor (p. 363)
- Anthropology, General Minor (p. 363)
- Anthropology, Biological Minor (p. 362)
- Anthropology, Cultural Minor (p. 363)
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## Certificates

- Certificate in Applied Gerontology (p. 363)

## Anthropology

**ANTH 1500 Introduction to Anthropology 3 s.h.**

An exploration of what it means to be human from a biological and cultural perspective using archaeology, bioanthropology, and ethnography to trace over four million years of human development.

**Gen Ed:** Social Science.

**ANTH 1503 The Rise and Fall of Civilizations 3 s.h.**

Comparative survey of the archaeological evidence on the origins, development, and collapse of the great early civilizations of the world. The transformation of societies from settled villages to urban states in Mesopotamia, Egypt, China, Mexico, and Peru. Analysis of the archaeological discoveries, alternative interpretations, and general theories of cultural evolution.

**Gen Ed:** Social Science.

**ANTH 2600 Human Osteology 4 s.h.**

An examination of the anatomy of the skeleton in a defleshed state to gain an understanding of the characteristics and personal biology of individuals and exploration of the range of human variation within and between populations.

**ANTH 3701 Social Statistics 4 s.h.**

Measurement and interpretation of social data by the use of descriptive techniques. Examines methods of probability theory as a basis for statistical inference, hypothesis testing, correlation, chi-square, and variance analysis. Listed also as SOC 3701.

**Prereq.:** SOC 1500 or ANTH 1500, successful completion of ENGL 1551 and MATH 1501 or a level 3 or higher on the math placement exam.

**ANTH 3702 Archaeology 3 s.h.**

An introduction to the methods and subject matter of archaeology in its reconstruction of Paleolithic and prehistoric cultures as inferred from artifacts.

**Prereq.:** ANTH 1500 or ANTH 1503.

**ANTH 3703 Biological Anthropology 3 s.h.**

The physical origins and development of the human species as a member of the primate order and the biological bases of human differences disclosed by human paleontology and archaeology.

**Prereq.:** ANTH 1500.

**Cross-listed:** BIOL 3704.

**ANTH 3704 Primates 3 s.h.**

Primate evolution throughout the Cenozoic Era, from primate origins to the advent of hominids. Examines research into the natural behavior of a wide range of primates, focusing on the social organization of terrestrial monkeys and apes.

**Prereq.:** ANTH 3703.

**ANTH 3705 Cultural Anthropology 3 s.h.**

A cross-cultural comparison of the cultural norms that regulate society, emphasizing the functional prerequisites for the existence of society and individual demands on society.

**Prereq.:** ANTH 1500.

**Cross-listed:** AMER 3705.

**ANTH 3750 Religion and Race 3 s.h.**

Examines race theory and its relation to religious studies through consideration of immigration patterns and the ways in which religion has been affixed to markers of identity over the last two hundred years.

**Prereq.:** REL 2601 or SOC 1500 or ANTH 1500.

**Cross-listed:** REL 3750 and SOC 3750.

**ANTH 3760 Cultures of the Old World 3 s.h.**

An examination of the ethnography, cultural contributions, and achievements of Old World peoples, which may include the cultures of Europe, Africa, the Middle East, Asia or Australia and Oceania. May be taken up to three times for credit if the topic is different.

**Prereq.:** ANTH 3705 or 6 s.h. in AFST, including AFST 2601.

**ANTH 3760H Cultures of the Old World 3 s.h.**

An examination of the ethnography, cultural contributions, and achievements of Old World peoples, which may include the cultures of Europe, Africa, the Middle East, Asia or Australia and Oceania. May be taken up to three times for credit if the topic is different.

**Prereq.:** ANTH 3705 or 6 s.h. in AFST, including AFST 2601.

**ANTH 3761 Cultures of the New World 3 s.h.**

An examination of various topics in New World cultures. Topics vary by semester and may include native South Americans, native North Americans, Native Americans' civil rights, the reservation system, and others. May be taken up to three times for credit if the topic is different.

**Prereq.:** ANTH 1500.

**ANTH 3762 The Power and Meaning of Food 3 s.h.**

Explores the relationship between culture and food in its material and symbolic forms. Examines the patterns of production, distribution, exchange, and consumption of food across time and within particular cultural and global contexts. Topics include the place of food in ritual, gift-giving, maintaining identities, and culture change.

**Prereq.:** ANTH 3705.

**ANTH 3775 Native North Americans 3 s.h.**

Detailed discussion of the culture and achievements of the tribal peoples native to North America.

**Prereq.:** ANTH 1500.

**ANTH 3777 Bahamian Archaeology 3 s.h.**

Examines the prehistory and ecology of the Bahamas and entails archaeological surveys and excavation of sites. May be repeated once.

**Prereq.:** ANTH 3702 or permission of the instructor.

**ANTH 3778 Archaeological Techniques 1-9 s.h.**

Practice in archaeological field methods, including surveying, mapping, excavation, and artifact analysis. Amount of field work and lab analysis can vary from four weeks to one semester. Credit hours may vary accordingly from 1 to 9 hours with approval of the instructor and department chair.

**Prereq.:** ANTH 3702 or permission of the chair.

**ANTH 3779 Fieldwork in Historical and Industrial Sites Archaeology 3 s.h.**

Excavation of New World sites after 1492, culminating in the physical examination of the remains of historical, industrial, and post-industrial sites. Techniques for literature search and fieldwork. May be repeated once with different site or theoretical focus.

**Prereq.:** ANTH 3702 or permission of chair.

**ANTH 3780 Forensic Anthropology 1 4 s.h.**

Forensics from the perspective of anthropology, especially through hands-on study of human remains. Methods of determining the sex, age, ancestry, and stature of an individual. Field methods for forensic anthropology and trauma analysis. 4 s.h.

**Prereq.:** ANTH 2600 or BIOL 3705.

**ANTH 3790 Aging in Cross-Cultural Perspective 3 s.h.**

Examines the phenomenon of aging from cross-cultural perspectives with an emphasis on cultural evolution and its impact upon the status, roles and cultural values associated with aging and the aged. Listed also as SOC 3790 and GERO 3790.

**Prereq.:** ANTH 1500 or SOC 1500, or GERO 1501.

**ANTH 4800 Undergraduate Research 1-2 s.h.**

Research participation under the direction and guidance of a full-time faculty member. Designed to acquaint the advanced student with special research problems associated with various aspects of the discipline. May be repeated to a maximum of 4 s.h.

**Prereq.:** Permission of chairperson and junior standing.

**ANTH 4801 Anthropological Thought 3 s.h.**

Analysis of the theories and methodology of the major contributors to contemporary anthropological thought, such as the evolutionist, diffusionist, functional, and multilineal schools.

**Prereq.:** ANTH 3705.

**ANTH 4815 Anthropology of Religion 3 s.h.**

A survey of anthropological approaches to the study of religion, illustrated by a critical consideration of past and present contributions to the field. Study of selected religious systems, areally and topically.

**Prereq.:** ANTH 3705 or 6 s.h. in REL including REL 2601.

**ANTH 4824 Old World Prehistory: Topics 3 s.h.**

Examination of the prehistoric development of Old World (Africa, Europe, Far East, Middle East, and Oceanic cultures). May be taken twice for credit if topic is different.

**Prereq.:** ANTH 3702.

**ANTH 4825 New World Archaeology: Topics 3 s.h.**

Examination of the archaeological evidence of the development of New World cultures from early prehistoric to late post-industrial times. Topics vary by semester and may include historical archaeology, North American prehistory, Ohio prehistory, Maya, Aztec and Inca, South American prehistory, and others. May be taken up to three times for credit if the topic is different. Some topics may include field work.

**Prereq.:** ANTH 3702.

**ANTH 4850 Research Methods 3 s.h.**

An introduction to methods employed in social research. Attention is given to (1) the logic of sociological inquiry and the relationship between theory and methods; (2) the various qualitative and quantitative methods; (3) research design, data collection, organization, analysis, interpretation and application; (4) the social, cultural, political, and ethical context of social research; and (5) computer skills employed in data analysis. Listed also as SOC 4850 or GERO 4850.

**Prereq.:** SOC 3701 or ANTH 3701.

**ANTH 4859 Senior Thesis 1 1 s.h.**

Design and completion of a quantitative or qualitative research proposal for the Senior Capstone in Anthropology.

**Prereq.:** Senior status in ANTH; ANTH 3701 and ANTH 4801, concurrent with ANTH 4850.

**ANTH 4860 Senior Thesis 2 3 s.h.**

A capstone experience for the major in anthropology. Implementing and completing a quantitative or qualitative research project and paper on the proposal approved by the thesis advisor during Senior Thesis 1.

**Prereq.:** Senior status in Anthropology; ANTH 4850 and ANTH 4859.

**ANTH 4877 Method and Theory in Archaeology 3 s.h.**

Past and contemporary theory and methodology in archaeology, with emphasis on recent innovations in the U.S. and Europe.

**Prereq.:** ANTH 3702.

**ANTH 4881 Forensic Anthropology 2 4 s.h.**

A continuation of Forensic Anthropology 1. An in-depth examination of the human skeletal system, its differentiation from other commonly found animal remains, and the ways in which skeletal remains help determine the cause of death, trauma to skeleton, antemortem skeletal conditions, postmortem interval, postmortem changes to bone, additional aspects of individualization, etc. Prereq. ANTH 3780 with "C" or better.

**ANTH 4882 Paleoanthropology 3 s.h.**

The origin and evolution of the human species in biological terms from studies of human evolution and emergence of certain critical biocultural essentials. Emphasis on fundamentals of paleoanthropological research, evidence of human evolution, important fossil finds and sites, and phylogenetic relationships.

**Prereq.:** ANTH 3703 with "C" or better; or BIOL 3759 with "C" or better.

**ANTH 4883 Case Studies in Forensic Anthropology 3 s.h.**

Introduction to advanced methods of forensic anthropology. The course consists of discussions and analysis of articles and case studies pertaining to forensic anthropology and the role of the forensic anthropologist.

**Prereq.:** ANTH 4881.

**ANTH 4890 Advanced Topics in Archaeology 3 s.h.**

Study of select subjects dealing with various aspects of advanced archaeological issues, methodologies, techniques, and applications. Topics vary by semester and include archaeological laboratory techniques and cultural resource management. May be taken twice with different topics.

**Prereq.:** ANTH 3702.

**ANTH 4891 Advanced Topics in Biological Anthropology 3 s.h.**

Study of select subjects dealing with various aspects of advanced archaeological issues, methodologies, techniques, and applications. Topics vary by semester and include primate ethology and human paleontology.

**Prereq.:** ANTH 3703 and 9 s.h. in ANTH.

**ANTH 6910 Special Anthropological Problems 3 s.h.**

Advanced seminars focusing on independent study at the graduate level. The study of archaeology, its methods and functions; human origins and differentiation; anthropology of religion; and cultural change and its impact. May be repeated with different topic.

## Gerontology

**GERO 1501 Introduction to Gerontology 3 s.h.**

Basic introduction to the interdisciplinary study of aging. Includes social, psychological, economic, cultural, health, and policy issues. Discussion of normal vs. abnormal (disease-related) aspects of aging.

**Gen Ed:** Social Science.

**GERO 3703 Aging and Society 3 s.h.**

An interdisciplinary introduction to studies in aging. Examines the impact of population aging and its effect on society at large. Also examines individual aging processes and social significance of aging. Listed also as SOC 3703.

**Prereq.:** SOC 1500 or GERO 1501.

**Gen Ed:** Social Science, Well Being, Social and Personal Awareness.

**GERO 3745 Sociology of Health, Illness, and Healthcare 3 s.h.**

Social attitudes toward illness. Cultural and social factors in disease definition of illness, and organization of the health professions and health facilities. Listed also as SOC 3745.

**Prereq.:** SOC 1500, GERO 1501, or admission to NEOMED-YSU program.

**Gen Ed:** Well Being, Social and Personal Awareness.

**GERO 3755 Theories of Gerontology 3 s.h.**

Review and critical analysis of current theories of the social aspects of aging and their use in research. Listed also as SOC 3755.

**Prereq.:** SOC 1500 or GERO 1501.

**GERO 3756 Aging and Ethnicity 3 s.h.**

Aging in American subcultures, noting differences in status/role systems, demographic distributions, life styles, methods of dealing with the elderly, and related problems. Listed also as SOC 3756.

**Prereq.:** SOC 1500 or GERO 1501.

**GERO 3757 Aging and Social Policy 3 s.h.**

Critical examination of social policies and social systems which affect aging and retirement. Listed also as SOC 3757 and POL 3757.

**Prereq.:** SOC 1500, GERO 1501, or POL 1560.

**GERO 3758 Long-Term Care 3 s.h.**

Examines critical issues in long-term care systems, services, and programs. Impacts of social demographic and economic changes on long-term care needs, demands, and supplies. Contemporary trends and future outlooks of long-term care. Listed also as SOC 3758.

**Prereq.:** SOC 1500 or GERO 1501.

**GERO 3759 Physical Change and Aging 3 s.h.**

Designed to provide knowledge about physical aspects of human aging and factors that affect physical aging. Students learn about physical changes that occur naturally with advancing age and changes associated with disease or disability (abnormal changes). Behavioral and inherent factors that influence physical aging are discussed with the goal to increase awareness of prevention strategies.

**Prereq.:** GERO 1501 or SOC 1500.

**GERO 3761 Elder Crimes - Elder Justice 3 s.h.**

Issues in gerontology and aging that affect law enforcement and the criminal justice system.

**Prereq.:** GERO 1501 or SOC 1500 or CJFS 1500.

**Cross-listed:** CJFS 3761 and SOC 3761.

**GERO 3790 Aging in Cross-Cultural Perspective 3 s.h.**

Examines the phenomenon of aging from cross-cultural perspectives with an emphasis on cultural evolution and its impact upon the status, roles and cultural values associated with aging and the aged. Listed also as SOC 3790 and ANTH 3790.

**Prereq.:** GERO 1501 or ANTH 1500, or SOC 1500.

**GERO 4804 Family, Health, and Aging 3 s.h.**

Examines family and health related aspects of aging. Positive and negative interactions among family members and caregivers, and their impact on mental and physical quality of life of the elderly. Listed also as SOC 4804.

**Prereq.:** GERO 3703 or SOC 3703.

**GERO 4821 Internship in Gerontology 3-15 s.h.**

Application of gerontological knowledge in settings such as social agencies, government offices, hospitals, nursing homes, or industry. May be repeated up to 15 s.h., but only a maximum of 6 semester hours can be applied to the gerontology major.

**Prereq.:** Junior standing, 9 s.h. of Gerontology, and permission of chairperson.

**GERO 4850 Research Methods 3 s.h.**

An introduction to methods employed in social research. Attention is given to (1) the logic of scientific inquiry and the relationship between theory and methods; (2) the various qualitative and quantitative methods; (3) research design, data collection, organization, analysis, interpretation and application; (4) the social, cultural, political, and ethical context of social research; and (5) computer skills employed in data analysis. Listed also as ANTH 4850 or SOC 4850.

**Prereq.:** SOC 3701, ANTH 3701.

**GERO 4851 Capstone in Gerontology 3 s.h.**

A capstone experience for the interdisciplinary study of aging. Students will complete a major research project.

**Prereq.:** Senior status in Gerontology and SOC 4850.

**Gen Ed:** Capstone.

**GERO 4860 Senior Thesis 3 s.h.**

A capstone experience for the major in gerontology. Designing, implementing, and completing an empirical research project and paper on a topic approved by the thesis advisor.

**Prereq.:** senior status in GERO; GERO 4850 or SOC 4850.

**Cross-listed:** SOC 4860.

**GERO 6906 Perspectives in Gerontology 3 s.h.**

Focus on the major theoretical perspectives of aging and aging related research with a focus on health. Theories from gerontology, epidemiology, sociology, and psychology will be covered.

**GERO 6915 Service Delivery Aging Policy 3 s.h.**

An interdisciplinary analysis of services for older adults including an examination of major policies, programs, and trends in aging.

**GERO 6960 Epidemiology of Aging 3 s.h.**

Integration and application of epidemiologic theories; major conceptual issues regarding epidemiology and aging; and contemporary interdisciplinary concepts and research. Primary focus will be on the disease distribution and leading causes of death among our aging population.

**GERO 6998 Anatomy and Physiology of Aging 3 s.h.**

Using a systems approach, this course will examine the anatomical and physiological changes that occur with aging. It will discuss age-related disorders and evaluate the impact of these changes on activities and daily function.

**GERO 6999 Research Methods 3 s.h.**

This course serves as an introduction to major methodological issues and basic statistics in the social-scientific study of gerontology. Major topics include developmental perspective and conceptualization of change, basic developmental research design, conceptualization of research problems, research design, measurement, and data analysis. This course should enable students to formulate research questions, design studies, and determine measurement devices and methods of analysis from a developmental perspective.

**GERO 7001 Long-Term Care 3 s.h.**

This course will introduce students to the following topics: who needs long term care; population distribution of long-term care and its current trends; long-term care industry; human medicine and long-term care; social structures and social inequalities in long-term care; culture components of long-term care; family care and social care; government, laws, and social policies of long-term care; and long-term care in a global perspective.

**Prereq.:** GERO 6960.

**GERO 7090 Field Practicum 1-9 s.h.**

Students will complete a 200-hour placement in an aging-related workplace. Variable credit 1-6 s.h. May be repeated for up to 9 s.h.

**GERO 7094 Selected Topics 1-3 s.h.**

An examination of contemporary topics in the field of gerontology. Examples of subject areas that may be covered: Nutrition, Pharmacology, Legal, etc. variable credit 1-3 hours may be repeated for up to 6 credit hours.

**GERO 7094D Selected Topics Individual Research 1-3 s.h.**

An examination of contemporary topics in the field of gerontology. Examples of subject areas that may be covered: Nutrition, Pharmacology, Legal, etc. variable credit 1-3 hours may be repeated for up to 6 credit hours.

**GERO 7094F Selected Topics Health Promotion 1-3 s.h.**

An examination of contemporary topics in the field of gerontology. Examples of subject areas that may be covered: Nutrition, Pharmacology, Legal, etc. variable credit 1-3 hours may be repeated for up to 6 credit hours.

**GERO 7099 Thesis 1-3 s.h.**

A substantive research project with approval of a committee chair and committee. Variable credit 1-3 s.h. May be repeated for up to 6 s.h.

## Sociology

**SOC 1500 Introduction to Sociology 3 s.h.**

An introduction to the science of human societies and groups: analysis of the structures, functions, and processes that bring about changes in societies, groups, communities, classes, and institutions.

**Gen Ed:** Social Science.

**SOC 1500H Honors Introduction to Sociology 3 s.h.**

An introduction to the science of human societies and groups: analysis of the structures, functions, and processes that bring about changes in societies, groups, communities, classes, and institutions.

**Gen Ed:** Social Science.

**SOC 2601 Social Problems 3 s.h.**

A sociological overview of various contemporary social issues, analyzing significant discrepancies between standards of expectation and actual social behavior, attempting to ascertain possible causes, and discussing trends and possible changes.

**Gen Ed:** Social Science.

**SOC 2630 Criminology 3 s.h.**

Study of the social context of crime in America. Review of historical theories offered in explanation of criminal behavior.

**SOC 2640 Gender in Society 3 s.h.**

Sociological analysis of gender role issues by major institutions of society, including political, educational, economic and legal systems as well as media and the family. Focus is on effects of stratification, culture, gender norms, and the socialization process.

**SOC 2690 Identities and Differences 3 s.h.**

A study of personal and social issues that shape the understanding and development of identity and diversity.

**Gen Ed:** Domestic Diversity, Social and Personal Awareness.

**SOC 3700 Minority Groups 3 s.h.**

Survey of the origins and characteristics of ethnic and racial minority groups, with emphasis on the significance of membership in such a group for in-group, out-group, and community solidarity.

**Prereq.:** SOC 1500.

**Cross-listed:** AMER 3700.

**SOC 3701 Social Statistics 4 s.h.**

Measurement and interpretation of social data by use of descriptive techniques. Examines methods of probability theory as a basis for statistical inference, hypothesis testing, correlation, chi-square, and variance analysis. Listed also as ANTH 3701.

**Prereq.:** SOC 1500 or ANTH 2602, successful completion of ENGL 1551 and MATH 1501 or a level 3 or higher on the math placement exam.

**SOC 3703 Aging and Society 3 s.h.**

An interdisciplinary introduction to studies in aging. Examines the impact of population aging and its effect on the society at large. Also examines individual aging processes and social significance of aging. Listed also as GERO 3703.

**Prereq.:** SOC 1500 or GERO 1501.

**Gen Ed:** Social Science, Well Being, Social and Personal Awareness.

**SOC 3705 The Family 3 s.h.**

Family and kinship systems as major institutions; their development, functions, and relation to other basic institutions found in different cultures and social strata.

**Prereq.:** SOC 1500 or ANTH 1500.

**SOC 3707 Urban Sociology 3 s.h.**

A comparative study of cities of pre-industrial and industrial societies, historical and contemporary. The process of urbanization and changing urban structure and functions.

**Prereq.:** SOC 1500.

**SOC 3708 Political Sociology 3 s.h.**

The social conditions that affect government and politics and that may help to determine political order and regulate struggles for power; associations and movements leading to stability or change.

**Prereq.:** SOC 1500.

**SOC 3720 Applied Sociology 3 s.h.**

Uses of sociology in practical affairs, providing theory and data for public policy, institutional reform, social action programs, and social inventions. Contributions to architectural design, industrial engineering, community planning, and innovative legislation.

**Prereq.:** SOC 1500.

**Cross-listed:** AMER 3720.

**SOC 3731 Social Deviance 3 s.h.**

Focuses on problems of drug abuse, sexual deviation, crime, and other forms of deviance. Theoretical approaches to deviant behavior; etiologies and methods of social control are explored.

**Prereq.:** SOC 1500 or CJFS 1500.

**SOC 3733 White Collar Crime 3 s.h.**

Focuses on distinguishing between various types of white collar crime, such as corporate fraud, corruption of public officials, and environmental crime. Also examines theoretical explanations for white collar crime and situates it within larger social contexts of power and status.

**Prereq.:** SOC 1500 or CJFS 1500.

**SOC 3735 Juvenile Delinquency 3 s.h.**

Social and psychological factors underlying delinquency; the juvenile court and probation; treatment and preventive measures.

**Prereq.:** SOC 1500 or CJFS 1500.

**SOC 3736 Crime and the Life Course 3 s.h.**

Examines the development, stability, and change of criminal behavior throughout different stages of the life course. Themes such as criminal trajectories, transitions, and turning points are discussed.

**Prereq.:** SOC 1500 or CJFS 1500.

**SOC 3740 Complex Organizations 3 s.h.**

Structures and processes of large-scale organizations: leadership, control techniques, tensions, bureaucratic pathologies, organizational change.

**Prereq.:** SOC 1500.

**SOC 3741 Social Movements 3 s.h.**

Analysis of the role of social movements, intellectual criticism, and socioeconomic trends; study of the dynamics of change initiated outside of regular and institutionalized channels, including mobs and crowds.

**Prereq.:** SOC 1500.

**SOC 3742 Small Group Processes 3 s.h.**

A study of small group behavior; influence, attitudes, and values of social microsystems.

**Prereq.:** SOC 1500.

**SOC 3743 Social Stratification and Inequality 3 s.h.**

Comparative analysis of social stratification systems with major emphasis on modern Western societies.

**Prereq.:** SOC 1500.

**SOC 3744 Social Deviance 3 s.h.**

Problems of drug abuse, sexual deviation, crime, and other forms of deviance. Theoretical approaches to deviant behavior; etiologies and methods of social control.

**Prereq.:** SOC 1500.

**SOC 3745 Sociology of Health, Illness, and Healthcare 3 s.h.**

Social attitudes toward illness. Cultural and social factors in disease definition of illness, and organization of the health professions and health facilities. Listed also as GERO 3745.

**Prereq.:** SOC 1500, GERO 1501, or admission to NEOMED-YSU program.

**Gen Ed:** Well Being, Social and Personal Awareness.

**SOC 3746 Sociology of the Body 3 s.h.**

This course examines the body and its relationship to the self as a product of complex social arrangements and processes. The body is studied as an object of social control and as the focus of shifting race, gender, and sexual categories. Topics include health, medicine, consumerism, sports, and popular culture.

**Prereq.:** SOC 1500.

**SOC 3749 Sociological Theory 3 s.h.**

The major theoretical traditions in Sociology emerging from the enlightenment period and evolving to the present.

**Prereq.:** SOC 1500 or ANTH 2602.

**SOC 3750 Religion and Race 3 s.h.**

Examines race theory and its relation to religious studies through consideration of immigration patterns and the ways in which religion has been affixed to markers of identity over the last two hundred years.

**Prereq.:** REL 2601 or SOC 1500 or ANTH 1500.

**Cross-listed:** REL 3750 and ANTH 3750.

**SOC 3752 Evaluation Research 3 s.h.**

Introduction to the field of evaluation research of social policy and programs. Current procedures, concepts, and techniques. Social and ethical issues of research.

**Prereq.:** SOC 3701.

**SOC 3755 Theories of Gerontology 3 s.h.**

Review and critical analysis of current theories of the social aspects of aging, and their use in research. Listed also as GERO 3755.

**Prereq.:** SOC 1500 or GERO 1501.

**SOC 3756 Aging and Ethnicity 3 s.h.**

Aging in American subcultures, noting differences in status/role systems, demographic distributions, life styles, methods of dealing with the elderly, and related problems. Listed also as GERO 3756.

**Prereq.:** SOC 1500 or GERO 1501.

**SOC 3757 Aging and Social Policy 3 s.h.**

Critical examination of social policies and social systems which affect aging and retirement. Listed also as GERO 3757 and POL 3757.

**Prereq.:** SOC 1500, GERO 1501, or POL 1560.

**SOC 3758 Long-Term Care 3 s.h.**

Examines critical issues in long-term care systems, services, and programs. Impacts of social demographic and economic changes on long-term care needs, demands, and supplies. Contemporary trends and future outlooks of long-term care. Listed also as GERO 3758.

**Prereq.:** SOC 1500 or GERO 1501.

**SOC 3759 Sociology of Dementia 3 s.h.**

The understanding of the nature, causes, symptoms, and social consequences of dementia. Attention to the status of aging, and to the status of those who suffer from dementia in contemporary society.

**Prereq.:** SOC 1500.

**SOC 3760 Sociology of Death and Dying 3 s.h.**

Analysis of the social aspects of human death, dying, and bereavement using various sociological approaches. Explores data from secondary sources, surveys, and field investigations that relate to the institutional contexts of dying and grieving processes. Includes practical application of sociological analysis of dying and death.

**Prereq.:** SOC 1500.

**SOC 3761 Elder Crimes - Elder Justice 3 s.h.**

Issues in gerontology and aging that affect law enforcement and the criminal justice system.

**Prereq.:** GERO 1501 or SOC 1500 or CJFS 1500.

**Cross-listed:** GERO 3761.

**SOC 3789 Technology and Society 3 s.h.**

A critical exploration of how societal needs affect the creation of technologies and how technology affects society. An interdisciplinary approach in examining the complex interactions between humans and their tools.

**Prereq.:** BIOL 2601 or ENGR 1550 or SOC 1500, and junior standing.

**SOC 3790 Aging in Cross-Cultural Perspectives 3 s.h.**

Examines the phenomenon of aging from cross-cultural perspectives with an emphasis on cultural evolution and its impact upon the status, roles, and cultural values associated with aging and the aged. Listed also as ANTH 3790 and GERO 3790.

**Prereq.:** SOC 1500 or ANTH 1500 or GERO 1501.

**SOC 3798 Select Topics in Sociology 3 s.h.**

In-depth examination of various sociological topics and issues of both current and long-standing interest. May be taken twice with different topics.

**Prereq.:** 3 s.h. in Sociology.

**SOC 37980 ST Culture and People of China 3 s.h.**

In-depth examination of various sociological topics and issues of both current and long-standing interest. May be taken twice with different topics.

**Prereq.:** 3 s.h. in Sociology.

**SOC 3798X Select Topics in Sociology Race, Gender, Soc Class, Crime 3 s.h.**

In-depth examination of various sociological topics and issues of both current and long-standing interest. May be taken twice with different topics.

**Prereq.:** 3 s.h. in Sociology.

**SOC 4800 Undergraduate Research 1-2 s.h.**

Research participation under the direction of a faculty member. Designed to acquaint the advanced student with special research problems associated with various aspects of the discipline. May be repeated for a maximum of 4 s.h.

**Prereq.:** Permission of chairperson and 20 s.h. in Sociology.

**SOC 4801 Later Life Issues 3 s.h.**

An examination of contemporary issues and concerns among the elderly. Topics include family relations, finances, entitlements, Social Security, quality of life, and euthanasia.

**Prereq.:** SOC 3703.

**SOC 4804 Family, Health, and Aging 3 s.h.**

Examines family and health related aspects of aging. Positive and negative interactions among family members and caregivers, and their impact on mental and physical quality of life of the elderly. Listed also as GERO 4804.

**Prereq.:** SOC 3703 or GERO 3703.

**SOC 4810 International Study in Sociology 3 s.h.**

Sociological study of a selected international area. Travel to the area of study under the supervision of a Sociology faculty member. The course grade is based on participation in the trip and a term paper or comparable assignments. May be repeated once. Permission of the chairperson.

**SOC 4821 Internship in Sociology 3-9 s.h.**

Application of sociological knowledge in settings such as social agencies, government offices, hospitals, nursing homes, correctional facilities, and industry. Maximum of 6 s.h. may be applied to the Sociology major.

**Prereq.:** Junior standing and at least 9 s.h. of Sociology, and permission of chairperson.

**SOC 4850 Research Methods 3 s.h.**

An introduction to methods employed in social research. Attention is given to (1) the logic of scientific inquiry and the relationship between theory and methods; (2) the various qualitative and quantitative methods; (3) research design, data collection, organization, analysis, interpretation and application; (4) the social, cultural, political, and ethical context of social research; and (5) computer skills employed in data analysis. Listed also as ANTH 4850 or GERO 4850. **Prereq.:** SOC 3701, ANTH 3701.

**SOC 4859 Senior Thesis 1 1 s.h.**

Design and completion of a quantitative or qualitative research proposal for the Senior Capstone in Sociology.

**Prereq.:** Senior status in SOC; SOC 3701 and SOC 3749, concurrent with SOC 4850.

**SOC 4860 Senior Thesis 2 3 s.h.**

A capstone experience for the major in sociology. Implementing and completing a quantitative or qualitative research project and paper on the proposal approved by the thesis advisor during Senior Thesis 1.

**Prereq.:** Senior status in Sociology; SOC 4850 and SOC 4859.

**SOC 4898 Selected Problems in Sociology and Anthropology 1-3 s.h.**

Readings in sociology and anthropology dealing with current problems in theory and methods. Credit is given according to the nature and extent of the problems and the readings. For students planning to enter graduate school.

**Prereq.:** Departmental major in senior year.

**SOC 6900 Special Sociological Problems 3 s.h.**

Advanced seminars focusing on independent study at the graduate level; social organization in a changing world; social disorganization (or deviance) and social controls; social and cultural factors in personality development; minority relationships; sociology of law; social change; and comparative institutions.

**SOC 6905 Social Gerontology 3 s.h.**

Integration and application of gerontological theories; major conceptual issues regarding life span development; and contemporary gerontological concepts and research.

## Bachelor of Arts in Anthropology

A major in anthropology can take several directions. As the study of humankind, a background in anthropology can be immediately useful in many careers such as business, government, law, elementary and secondary education, urban affairs, administration, and industry (<http://www.americananthro.org/AdvanceYourCareer/Content.aspx?ItemNumber=1783>). Others can use the bachelor's degree as a first step in acquiring an advanced degree and ultimately teaching and doing research at the college or university level.

### Internships in Anthropology

Internships and fieldwork opportunities are available to all Anthropology majors. Internships may be either paid or unpaid. Anthropology majors may have the opportunity to apply their knowledge during an internship at the Mahoning County Coroner's Office or through fieldwork locally, in Guatemala, in the Bahamas, and elsewhere.

To earn the BA degree the student must satisfy all the degree requirements in the College of Liberal Arts and Social Sciences and take 40 semester hours of courses from the Anthropology curriculum. Required courses are:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Foreign Language Requirement		8
Arts and Humanities		6
Natural Sciences (one course must include a lab)		7
Social Science		6
Social and Personal Awareness		6
LASS 1510	Exploring Critical Questions in LASS	3
<b>Major Requirements</b>		
ANTH 1500	Introduction to Anthropology	3
ANTH 3701	Social Statistics	4
ANTH 3702	Archaeology	3
ANTH 3703	Biological Anthropology	3
ANTH 3705	Cultural Anthropology	3
ANTH 4801	Anthropological Thought	3
ANTH 4850	Research Methods	3
ANTH 4860	Senior Thesis 2	3
Select one area course from each of the three subfields.		9
Select two upper-division anthropology electives.		6
<b>Minor</b>		18

**Electives** Must complete a minimum number of electives to meet the 120sh total graduation requirement 14

**Total Semester Hours** 120

Students are responsible for satisfying all prerequisites and maintaining a "C" or better in all major and minor requirements and cannot take courses on a "CR/NC" basis.

Students wishing to minor in anthropology must complete 18 s.h. in an approved designated minor. Students are responsible for satisfying all prerequisites and maintaining "C" or better in all minor requirements and cannot take courses on a "CR/NC" basis.

Minors in anthropology offered from the department are as follows:

- General Anthropology (p. 363)
- Archaeology (p. 363)
- Biological Anthropology (p. 362)
- Cultural Anthropology (p. 363)
- Forensic Anthropology (p. 363)

**See Minors for course requirements.**

\*Please see your advisor in order to ensure that you are on track to graduate.

\*For General Education electives, be sure that you take two courses from each knowledge domain, including a science lab:

<http://cms.yzu.edu/general-education/general-education-courses-knowledge-domain>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ANTH 1500	Introduction to Anthropology (This course fulfills a GER SS requirement)	3
ENGL 1550	Writing 1 <sup>1</sup>	3
MATH 2623	Quantitative Reasoning <sup>1</sup>	3
FNLG 1550	Elementary Foreign Language <sup>1</sup>	4
LASS 1510	Exploring Critical Questions in LASS	3
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
ANTH 3705	Cultural Anthropology	3
ENGL 1551	Writing 2 <sup>1</sup>	3
CMST 1545	Communication Foundations	3
FNLG 2600	Intermediate Foreign Language <sup>1</sup>	4
General education elective course		3
<b>Semester Hours</b>		<b>16</b>

<b>Year 2</b>		
<b>Fall</b>		
ANTH 3702	Archaeology	3
ANTH 3703	Biological Anthropology	3
General education elective course		3
General education elective course		3
General education Natural Science w/lab		4
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
ANTH 26xx/37xx+ Biological ANTH elective		3
General education elective course		3
General education elective course		3

General education elective course	3
Course in Minor	3

**Semester Hours** 15

**Year 3**

**Fall**

ANTH 3701	Social Statistics	4
ANTH 37XX+ Archaeology Elective		3
ANTH 37xx+ Cultural Anthropology elective		3
Course in Minor		3

**Semester Hours** 13

**Spring**

ANTH 4801	Anthropological Thought	3
ANTH 37xx+ Anthropology elective		3
37xx+ Course in Minor		3
37xx+ Course in Minor		3
Elective course		3

**Semester Hours** 15

**Year 4**

**Fall**

ANTH 4850	Research Methods	3
ANTH 37XX+ Anthropology Elective		3
37xx+ Course in Minor		3
Elective course		3
Elective course		3

**Semester Hours** 15

**Spring**

ANTH 4860	Senior Thesis 2	3
ANTH 4800	Undergraduate Research	2
37xx+ Course in Minor		3
37xx+ Upper division elective course		3
Elective course		3

**Semester Hours** 14

**Total Semester Hours** 120

<sup>1</sup> Placement test in English, math, and foreign languages required before registration for classes.

## LEARNING OUTCOMES

The department's learning outcomes for anthropology majors are as follows:

- Students can demonstrate comprehension of the fundamental principles and concepts of the four field holistic approach to anthropology.
- Students can evaluate anthropological theories and guiding ethics.
- Students can evaluate the scientific process and research methods. Students can evaluate the importance of past or present cultures, cultural variation, and cultural change in the global context.
- Students can analyze evolutionary biology using mechanism of evolutionary change.

## Bachelor of Arts in Gerontology

Gerontology is the interdisciplinary study of aging and is a rapidly growing field. The gerontology major prepares the students for a career in the field of aging. Since aging is a multifaceted, complex phenomenon, an interdisciplinary training in gerontology will give students an edge in working with the aging population.

The field of aging provides diverse occupational opportunities in health professions, non-profit organizations, recreation and leisure, for-profit businesses, education, research, government, and service providers. Settings

include community, human service and religious organizations, government agencies, health and long-term care facilities, retirement communities, academic and research settings, business, industry, legal, and professional organizations.

COURSE	TITLE	S.H.
General Education Requirements		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
MATH 2623	Quantitative Reasoning	3
Foreign Language		
1550 Language		8
2600 Language		
GEN ED Knowledge Domains:		
Some courses are categorized in more than one knowledge domain. Courses can only be used once with the GE model.		
Arts and Humanities		
		6
Natural Sciences (2 courses - one must include a lab)		
		7
Social Science		
		6
SOC 1500	Introduction to Sociology	
GERO 1501	Introduction to Gerontology	
Social and Personal Awareness		
		6
GERO 3703	Aging and Society	
GERO 3745	Sociology of Health, Illness, and Healthcare	
General Education Elective		
		3
PSYC 1560	General Psychology	
<b>Major Requirements</b>		
GERO 1501	Introduction to Gerontology	3
SOC 3701	Social Statistics	4
GERO 3703	Aging and Society	3
FNUT 3720	Nutrition, Health, and Aging	3
GERO 3755	Theories of Gerontology	3
PSYC 3756	Adolescent Development	3
SOC 4801	Later Life Issues	3
GERO 4821	Internship in Gerontology	3-15
GERO 4850	Research Methods	3
GERO 3759	Physical Change and Aging	3
GERO 4851	Capstone in Gerontology	3
<b>Choose 3 s.h. from the following courses:</b>		
GERO 3757	Aging and Social Policy	3
POL 3717	Health Care Policy	3
SCWK 3730	Social Services and the Aged	3
<b>Choose a minimum of 12 s.h. from the following courses:</b>		
GERO 3745	Sociology of Health, Illness, and Healthcare	3
GERO 3756	Aging and Ethnicity	3
GERO 3758	Long-Term Care	3
SOC 3759	Sociology of Dementia	3
SOC 3760	Sociology of Death and Dying	3
GERO 3790	Aging in Cross-Cultural Perspective	3
GERO 4804	Family, Health, and Aging	3
GERO 3757	Aging and Social Policy	3
PHLT 3757	Health and Disease	4
PHLT 4828	Grant Writing	3
KSS 4870	Exercise and Aging for Health Professions	3
FNUT 4873	Nutrition and Aging	2
POL 3717	Health Care Policy	3

Course	Title	S.H.
PSYC 4857	Biopsychological Aspects of Health and Aging	3
PSYC 3757	Adult Development	3
ECON 1504	Economics of Aging	3
SCWK 3730	Social Services and the Aged	3
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1 <sup>1</sup>	3
GERO 1501	Introduction to Gerontology	3
or PSYC 1560	or General Psychology	
General Education Natural Science elective		
		3
Foreign Language 1550 <sup>1</sup>		
		4
SOC 1500	Introduction to Sociology	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2 <sup>1</sup>	3
PSYC 1560	General Psychology	3
or GERO 1501	or Introduction to Gerontology	
CMST 1545	Communication Foundations	3
Foreign Language 2600 <sup>1</sup>		
		4
MATH 2623	Quantitative Reasoning	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
GERO 3703	Aging and Society (cross-listed)	3
or SOC 3703	or Aging and Society	
General Education Arts and Humanities elective		
		3
General Education Natural Science elective with lab		
		4
GERO 37XX Gerontology Elective		
		3
Elective		
		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
FNUT 3720	Nutrition, Health, and Aging	3
General Education Arts and Humanities elective		
		3
Gerontology Elective		
		3
Elective		
		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
PSYC 3758	Lifespan Development	3
GERO 3759	Physical Change and Aging	3
Policy Elective		
		3
Gerontology Elective		
		3
Elective		
		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
SOC 3701	Social Statistics	4
GERO 3755	Theories of Gerontology	3
GERO 3745	Sociology of Health, Illness, and Healthcare	3
or SOC 3745	(cross-listed)	
	or Sociology of Health, Illness, and Healthcare	
Elective		
		3
Elective		
		3
<b>Semester Hours</b>		<b>16</b>



**Year 4****Fall**

GERO 4850	Research Methods	3
GERO 4821	Internship in Gerontology	4
Elective		4
Elective		3
<b>Semester Hours</b>		<b>14</b>

**Spring**

SOC 4801	Later Life Issues	3
GERO 4851	Capstone in Gerontology	3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>12</b>

**Total Semester Hours** **120**

<sup>1</sup> Placement test in English, math, and foreign languages required before registration for classes.

## Learning Outcomes

- Students can demonstrate understanding of the discipline of gerontology and its interdisciplinary approach to aging and society (Disciplinary Knowledge).
- Students can explain the diversity and complexity of aging in our society.
- Students can dispel ageist stereotypes about aging and older adults.
- Students can explain theories, fundamental principles, theories, and core concepts of gerontology.
- Students can assess the scientific process including various qualitative and quantitative methods. Students can synthesize theory and methods by completing an original empirical research project.

## Bachelor of Arts in Sociology

A major in sociology is for advanced graduate/professional study of sociology, law, counseling, social work, criminal justice, urban development, education, and other fields requiring work beyond the bachelor's level. A major in sociology also prepares students for employment in:

- government agencies
- businesses
- hospitals
- education
- urban affairs
- personnel

To earn the BA degree, the student must satisfy all the degree requirements in the College of Liberal Arts and Social Sciences and take 31 semester hours of courses from the sociology curriculum. Required courses are:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Foreign Language Requirement		8
Arts and Humanities		6
Natural Sciences (one course must include a lab)		7
Social Science		6
Social and Personal Awareness		6

LASS 1510	Exploring Critical Questions in LASS	3
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**Major Requirements**

SOC 1500	Introduction to Sociology	3
SOC 3701	Social Statistics	4
SOC 3749	Sociological Theory	3
SOC 4850	Research Methods	3
SOC 4859	Senior Thesis 1	1
SOC 4860	Senior Thesis 2	3

**Sociology Electives**

Select one Sociology course from each Sociology domain **18**

Domain 1: Social Inequality SOC 2640, 2690, 3700, 3743, 3798 (Topic: Race, Gender, Social Class, and Crime), or 3798 (Topic: Culture and People of China)

Domain 2: Social Institutions SOC 3705, 3707, 3708, 3740, 3741, or 3745

Domain 3: Gender and the Family SOC 2640, 3705, 3746, 3798 (Topic: Gender and Work), or 3798 (Topic: Sociology of Sexuality)

Domain 4: Deviance and Criminology SOC 2601, 2630, 3731, 3733, 3735, 3736, or 3798 (Topic: Race, Gender, Social Class, and Crime)

Domain 5: Aging SOC 3703, 3755, 3757, 3758, 3759, 3760, 3761, or 4801

Domain 6: Research and Internships SOC 3720, 4800, 4810, or 4821

**Minor** **18**

**Electives** Must complete a minimum number of electives to meet the 120sh total graduation requirement **20**

**Total Semester Hours** **121**

Students are responsible for satisfying all prerequisites and maintaining a "C" or better in all major and minor requirements and cannot take courses on a "CR/NC" basis.

Students wishing to minor in sociology must complete 18 s.h. by selecting courses from appropriate categories. Students are responsible for satisfying all prerequisites and maintaining a "C" or better in all minor requirements and cannot take courses on a "CR/NC" basis.

\*Please see your advisor in order to ensure that you are on track to graduate.

\*For General Education electives, be sure that you take two courses from each knowledge domain, including a science lab:

For more information, consult General Education Courses by Knowledge Domain (<http://cms.yzu.edu/general-education/general-education-courses-knowledge-domain>).

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1 <sup>1</sup>	3
MATH 2623	Quantitative Reasoning <sup>1</sup>	3
LASS 1510	Exploring Critical Questions in LASS	3
FNLG 1550	Elementary Foreign Language <sup>1</sup>	4
SOC 1500	Introduction to Sociology	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2 <sup>1</sup>	3
CMST 1545	Communication Foundations	3
General Education course		3
FNLG 2600	Intermediate Foreign Language <sup>1</sup>	4

SOC 26XX Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
SOC 37XX Sociology elective		3
SOC 37xx Sociology elective		3
General Education course		3
General Education course		3
General Education NS with lab		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
SOC 37XX Sociology elective		3
Course in Minor		3
General Education course		3
General Education course		3
General Education course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
SOC 3749 Sociological Theory		3
SOC 37XX Sociology elective		3
Course in Minor		3
37xx Course in Minor		3
37XX Upper division Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
SOC 3701 Social Statistics		4
SOC 37XX Sociology elective		3
37xx Course in Minor		3
37xx Course in Minor		3
<b>Semester Hours</b>		<b>13</b>
<b>Year 4</b>		
<b>Fall</b>		
SOC 4850 Research Methods		3
SOC 4859 Senior Thesis 1		1
SOC 4800 Undergraduate Research		1
37xx Course in Minor		3
37xx Upper division Elective		3
Elective course		3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
SOC 4860 Senior Thesis 2		3
Elective course		3
Elective course		3
Elective course		3
Elective course		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

- Students can critically evaluate various theoretical perspectives in sociology.
- Students can demonstrate comprehension of the scientific process and evaluate various qualitative and quantitative methods.
- Students can synthesize theory and methods by designing, implementing, and completing an empirical research project.
- Students can evaluate research in at least one substantive area within sociology in depth.

## Bachelor of Science in Applied Science in Long Term Care Administration

The Department of Sociology, Anthropology, and Gerontology offers a Bachelor of Science in Applied Science degree in Long-Term Care Administration. The program prepares students to become specialized, self-critical, accountable administrators in long-term care facilities. Facilities may include home and community based care, assisted living, nursing homes, hospices, and related health care industries.

Students must complete all required coursework for the university and major and have:

- an overall GPA of 2.25
- a "C" or better in all courses in the major
- 1000 hours in an approved internship
- 48 hours of upper-division courses
- 128 hours of coursework overall

A minor is not necessary for this major and the requirements for the 21 semester hour Certificate in Applied Gerontology are fulfilled within the major.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
GEN ED Knowledge Domains:		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the GE model.		
Arts and Humanities		6
Natural Sciences (2 courses - one course must include a lab)		7
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	
CHEM 1500	Chemistry in Modern Living	
Social Science		6
GERO 1501	Introduction to Gerontology	
PSYC 1560	General Psychology	
Social and Personal Awareness		6
GERO 3703	Aging and Society	
GERO 3745	Sociology of Health, Illness, and Healthcare	
General Education Elective		3
ECON 2610	Principles 1: Microeconomics	

### Required courses for the Long Term Care Administration

Grade of "C" or better is required courses cannot be taken "CR/NC".

### Psychology Coursework (6 s.h.)

PSYC 1560	General Psychology	3
PSYC 3757	Adult Development	3

<sup>1</sup> Placement test in English, math, and foreign languages required before registration for classes.

## LEARNING OUTCOMES

The department's learning outcomes for sociology majors are as follows:

- Students can demonstrate understanding of the discipline of sociology and its role in contributing to our understanding of social reality.

Course	Title	S.H.	Course	Title	S.H.
<b>Support Coursework Sociology (4 s.h.)</b>			CMST 1545	Communication Foundations	3
SOC 3701	Social Statistics	4	<b>Semester Hours</b>		
<b>Gerontology Coursework (39 s.h.)</b>			<b>Year 2</b>		
GERO 1501	Introduction to Gerontology	3	<b>Fall</b>		
GERO 3703	Aging and Society	3	ACCT 2602	Financial Accounting	3
GERO 3757	Aging and Social Policy	3	CHEM 1500	Chemistry in Modern Living	3
or SCWK 3730	Social Services and the Aged		GERO 3703	Aging and Society	3
GERO 3745	Sociology of Health, Illness, and Healthcare	3	or SOC 3703	or Aging and Society	
SOC 3760	Sociology of Death and Dying	3	CMST 2655	Communication in Groups and Organizations	3
SOC 3759	Sociology of Dementia	3	SOC 3758	Long-Term Care	3
SOC 4801	Later Life Issues	3	NURS 3746	Geriatric Health	2
GERO 4821	Internship in Gerontology	3-15	<b>Semester Hours</b>		
GERO 4821	Internship in Gerontology	3-15	<b>17</b>		
GERO 4850	Research Methods	3	<b>Year 3</b>		
GERO 4851	Capstone in Gerontology	3	<b>Fall</b>		
<b>Business &amp; Technology Coursework (34 s.h.)</b>			ACCT 2603	Managerial Accounting	3
Students must have overall 2.5 GPA to register for upper division coursework in Williamson College of Business			FNUT 3720	Nutrition, Health, and Aging	3
CSIS 1514	Business Computer Systems	3	MGT 3705	Fundamentals of Occupational Safety	3
BUS 1500	Exploring Business	3	ECON 2610	Principles 1: Microeconomics	3
ECON 2610	Principles 1: Microeconomics	3	Arts and Humanities Elective (AH)		3
ECON 4855	Health Economics	3	Arts and Humanities Elective (AH)		3
ACCT 2602	Financial Accounting	3	<b>Semester Hours</b>		
ACCT 2603	Managerial Accounting	3	<b>18</b>		
MGT 3705	Fundamentals of Occupational Safety	3	<b>Year 3</b>		
MGT 3715	Employee Relations and Workplace Ethics	3	<b>Fall</b>		
MGT 3725	Fundamentals of Management	3	MGT 3725	Fundamentals of Management	3
MGT 3750	Managing Individuals in Organizations	3	PHIL 3725	Biomedical Ethics	3
FIN 3720	Business Finance	3	CMST 3756	Interviewing	3
<b>Communications Coursework (3 s.h.)</b>			PSYC 3757	Adult Development	3
CMST 2655	Communication in Groups and Organizations	3	SCWK 3730	Social Services and the Aged	3
<b>Medical Professions, Nursing &amp; Allied Health Coursework (14 s.h.)</b>			or GERO 3757	or Aging and Social Policy	
MATC 1501	Medical Terminology	3	<b>Semester Hours</b>		
FNUT 3720	Nutrition, Health, and Aging	3	<b>15</b>		
NURS 3746	Geriatric Health	2	<b>Year 4</b>		
AHLT 4808	Environmental Health Concerns	3	<b>Fall</b>		
PHIL 3725	Biomedical Ethics	3	GERO 4821	Internship in Gerontology	6
Minimum of 124 s.h.			MGT 3715	Employee Relations and Workplace Ethics	3
<b>Course Title S.H.</b>			GERO 4850	Research Methods	3
<b>Year 1</b>			SOC 3759	Sociology of Dementia	3
<b>Fall</b>			<b>Semester Hours</b>		
ENGL 1550	Writing 1	3	<b>15</b>		
SOC 1500	Introduction to Sociology	3	<b>Year 4</b>		
or PSYC 1560	or General Psychology		<b>Fall</b>		
CSIS 1514	Business Computer Systems	3	GERO 4821	Internship in Gerontology	6
BUS 1500	Exploring Business	3	GERO 4851	Capstone in Gerontology	3
MATC 1501	Medical Terminology	3	SOC 4801	Later Life Issues	3
<b>Semester Hours</b>			ECON 4855	Health Economics	3
<b>15</b>			<b>Semester Hours</b>		
<b>Spring</b>			<b>15</b>		
ENGL 1551	Writing 2	3	<b>Total Semester Hours</b>		
PSYC 1560	General Psychology	3	<b>128</b>		
or SOC 1500	or Introduction to Sociology		<b>Minor in Biological Anthropology</b>		
BIOL 1545	Allied Health Anatomy and Physiology	5	<b>COURSE TITLE S.H.</b>		
& 1545L	and Allied Health Anatomy and Physiology Laboratory		<b>Required Courses</b>		
MATH 2623	Quantitative Reasoning	3	ANTH 1500	Introduction to Anthropology	3

ANTH 2600	Human Osteology	4
ANTH 3703	Biological Anthropology	3
ANTH 3704	Primates	3
ANTH 4882	Paleoanthropology	3
ANTH 4891	Advanced Topics in Biological Anthropology	3
<b>Total Semester Hours</b>		<b>19</b>

## Minor in Cultural Anthropology

18 hours required to complete minor. Some courses may be taken twice with different topics.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
ANTH 1500	Introduction to Anthropology	3
ANTH 3705	Cultural Anthropology	3
ANTH 3760	Cultures of the Old World (can be taken twice with different topics)	3
ANTH 3761	Cultures of the New World (can be taken twice with different topics)	3
Select up to two of the following:		
ANTH 4801	Anthropological Thought	3
ANTH 4815	Anthropology of Religion	3
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Forensic Anthropology

COURSE	TITLE	S.H.
<b>Required Courses</b>		
ANTH 1500	Introduction to Anthropology	3
ANTH 2600	Human Osteology	4
ANTH 3703	Biological Anthropology	3
ANTH 3702	Archaeology	3
ANTH 3780	Forensic Anthropology 1	4
ANTH 4881	Forensic Anthropology 2	4
ANTH 4883	Case Studies in Forensic Anthropology	3
<b>Total Semester Hours</b>		<b>24</b>

## Minor in General Anthropology

COURSE	TITLE	S.H.
<b>Required Courses</b>		
ANTH 1500	Introduction to Anthropology	3
ANTH 3702	Archaeology	3
ANTH 3703	Biological Anthropology	3
ANTH 3705	Cultural Anthropology	3
<b>Electives</b>		
Select 6 s.h. of anthropology electives.		6
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Archaeology

COURSE	TITLE	S.H.
<b>Required Courses</b>		
ANTH 1500	Introduction to Anthropology	3
ANTH 1503	The Rise and Fall of Civilizations	3
ANTH 3702	Archaeology	3
ANTH 3778	Archaeological Techniques <sup>1</sup>	3

or ANTH 3779	Fieldwork in Historical and Industrial Sites Archaeology	
<b>Electives</b>		
Select two of the following:		6
ANTH 3775	Native North Americans	
ANTH 4824	Old World Prehistory: Topics	
ANTH 4825	New World Archaeology: Topics	
ANTH 4877	Method and Theory in Archaeology	
ANTH 4890	Advanced Topics in Archaeology	
Students may substitute one of the following for an elective course:		
GEOG 2611	Geospatial Foundations	
GEOG 5805	Remote Sensing 1	
<b>Total Semester Hours</b>		<b>18</b>

<sup>1</sup> ANTH 3778 Archaeological Techniques is a variable credit course. Students may register for 1-9 credits, depending on the duration of the fieldwork. For the minor, students must complete 3 SH of fieldwork.

## Certificate in Applied Gerontology

Students desiring to pursue the Post Baccalaureate Certificate in Applied Gerontology must complete the following required core and elective courses. Please note: students must also complete required prerequisites to the upper division courses.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
GERO 3703	Aging and Society	3
SOC 4801	Later Life Issues	3
PSYC 3757	Adult Development	3
GERO 3759	Physical Change and Aging	3
<b>Field Work in Gerontology</b>		
GERO/SOC 4821	Internship in Gerontology	3
<b>Electives</b>		
Select two of the following:		6
GERO 3745	Sociology of Health, Illness, and Healthcare	3
GERO 3755	Theories of Gerontology	3
SOC 3758	Long-Term Care	3
GERO 3757	Aging and Social Policy	3
SOC 3759	Sociology of Dementia	3
SOC 3760	Sociology of Death and Dying	3
GERO 4804	Family, Health, and Aging	3
SOC 6905	Social Gerontology	3
ANTH 3790	Aging in Cross-Cultural Perspective	3
FNUT 3720	Nutrition, Health, and Aging	3
POL 3717	Health Care Policy	3
KSS 4870	Exercise and Aging for Health Professions	3
GERO 4821	Internship in Gerontology	3-15
SCWK 3730	Social Services and the Aged	3
PSYC 4857	Biopsychological Aspects of Health and Aging	3
ECON 1504	Economics of Aging	3
PSYC 3758	Lifespan Development	3

Note: The Certificate in Applied Gerontology comprises 21 semester hours. Students must maintain a "C" or better in all course work, must satisfy all prerequisites, and cannot take a course on a "CR/NC" basis.

## Minor in Gerontology

COURSE	TITLE	S.H.
<b>Required Courses</b>		

GERO 1501	Introduction to Gerontology	3
or SOC 1500	Introduction to Sociology	
Select five of the following:		15
GERO 3703	Aging and Society	
GERO 3755	Theories of Gerontology	
GERO 3756	Aging and Ethnicity	
GERO 3757	Aging and Social Policy	
SOC 4801	Later Life Issues	
GERO 4804	Family, Health, and Aging	
GERO 4821	Internship in Gerontology	
SOC 3759	Sociology of Dementia	
FNUT 3720	Nutrition, Health, and Aging	

**Total Semester Hours** 18

## Minor in Sociology

COURSE	TITLE	S.H.
<b>Required Courses</b>		
SOC 1500	Introduction to Sociology	3
<b>Select one of the following:</b>		3
SOC 3705	The Family	
SOC 3740	Complex Organizations	
SOC 3741	Social Movements	
SOC 3745	Sociology of Health, Illness, and Healthcare	
<b>Select one of the following:</b>		3
SOC 2640	Gender in Society	
SOC 3700	Minority Groups	
SOC 3743	Social Stratification and Inequality	
SOC 37980	ST Culture and People of China	
SOC 3798X	Select Topics in Sociology Race, Gender, Soc Class, Crime	
<b>Select one of the following:</b>		3
SOC 2601	Social Problems	
SOC 2630	Criminology	
SOC 3707	Urban Sociology	
SOC 3735	Juvenile Delinquency	
SOC 3744	Social Deviance	
<b>Select one of the following:</b>		3
SOC 3703	Aging and Society	
SOC 3755	Theories of Gerontology	
SOC 3756	Aging and Ethnicity	
SOC 3757	Aging and Social Policy	
SOC 3759	Sociology of Dementia	
<b>Select one of the following:</b>		
SOC 3720	Applied Sociology	3
SOC 4821	Internship in Sociology	3-9
<b>Total Semester Hours</b>		21-27

## Minor in Women's and Gender Studies

### Women's and Gender Studies Program Director

Director: Dr. Cryshanna A. Jackson Leftwich

Room 436 DeBartolo Hall

(330) 941-2114

cajackson@ysu.edu

The University offers a minor in Women's and Gender Studies with the advice and approval of the chair of the department in which the student is majoring. The minor requires completion of 18 hours. For information about the Women's and Gender Studies minor, contact the director or visit Women's and Gender Studies (<http://www.ysu.edu/academics/college-liberal-arts-social-sciences/womens-and-gender-studies-minor>).

COURSE	TITLE	S.H.
WMST 2601	Introduction to Women's Studies	3
<b>Select 15 semester hours from the courses listed below, with a minimum of 6 semester hours required at the 3700-level or above.</b>		15
ENGL 1560	Language, Ethnicity, and Gender	
ENGL 2617	Women in Literature	
FNLG 2660	Women in the Ancient World	
PHLT 2692	Human Sexuality	
SOC 2640	Gender in Society	
SOC 2690	Identities and Differences	
CHFM 3731	Individual and Family Development	
CJFS 4851	Women and Justice	
CMST 3750	Gender Communication	
ENGL 3732	Images of Women	
HIST 3726	History of Women in the United States	
HIST 3787	History of Women in Europe	
HMEC 5893	Work and Family	
MGT 3755	Managing Workplace Diversity	
MRCH 3730	Social Psychology of Clothing and Appearance	
PSYC 3707	Psychology of Intimate Relationships	
PSYC 3730	Psychology of Women	
REL 3733	Women And the Bible	
REL 3754	Feminism, Ecology and Religion	
WMST 3750	Special Topics in Women's Studies	
WMST 4850	Senior Research Project	

**Total Semester Hours** 18

#### WMST 2601 Introduction to Women's Studies 3 s.h.

Introduces key concepts, theoretical frameworks, and interdisciplinary research drawn from current scholarship about women. Concentrates on major issues relevant to the status and roles of contemporary women, including examination of effects of sexism, racism, ethnicity, and class distinction.

**Gen Ed:** Domestic Diversity, Social Science, Social and Personal Awareness.

#### WMST 2650 LGBTQ Issues in History and Popular Culture 3 s.h.

Explores the historical and present day representation of LGBT issues and individuals and their portrayal in popular culture.

**Cross-listed:** TCED 2650.

#### WMST 3750 Special Topics in Women's Studies 3 s.h.

May be repeated for a maximum of 6 s.h. with different topics.

**Prereq.:** WMST 2601; or ENGL 1551 and permission of director.

#### WMST 4850 Senior Research Project 1-3 s.h.

Research and writing of a paper on a topic in women's studies, under the supervision of full-time faculty. Grading is Traditional/PR.

**Prereq.:** Senior standing, completion of 15 s.h. in Women's Studies, and permission of program director.

# The Dr. Dominic A. and Helen M. Bitonte College of Health and Human Services

*Joseph L. Mosca, Dean*

*Tammy A. King, Associate Dean*

For more information, visit The Bitonte College of Health and Human Services (<http://www.ysu.edu/academics/bitonte-college-health-and-human-services>).

In support of the University mission to provide a wide range of educational opportunities in higher education, the Dr. Dominic A. and Helen M. Bitonte College of Health and Human Services assumes a broad focus. That focus entails preparing students for competent practice in positions in both the health and human service professions. The College is committed to excellence in education through the quality programs it provides. To assure continuity and opportunity for health and human service majors, the College has encouraged the development of two-plus-two curricula in several majors that allow students to efficiently progress from associate to baccalaureate degree program completion. Master's degree and a professional doctorate degree program further expand and advance the competencies of graduates in the delivery and administration of health care and human services.

## Accreditation

- The emergency medical services (EMS) and medical assisting technology programs are accredited by the Commission on Accreditation of Allied Health Education Programs. The EMS program is also accredited by the Ohio Department of Public Safety - Division of EMS (ODPS).
- The dental hygiene program is accredited by the American Dental Association Commission on Dental Accreditation (ADAC).
- The medical laboratory technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).
- The Bachelor of Science in respiratory care and polysomnography certificate programs are accredited by the Commission on Accreditation for Respiratory Care (COARC).
- The dietetic technology program, the coordinated program in dietetics, and the didactic program in dietetics are approved by the Accreditation Council for Education in Nutrition and Dietetics (ACEND).
- The Department of Human Ecology is accredited by the American Association of Family and Consumer Sciences (AAFCS).
- The family and consumer sciences education programs are accredited by the National Council for Accreditation of Teachers Education (NCATE).
- The Bachelor of Science in Nursing program is accredited by the Accreditation Commission for Education in Nursing and approved by the Ohio Board of Nursing (ACEN and OBN).
- The physical therapy program is accredited by the Commission on Accreditation in Physical Therapy Education (APTE).
- The social work program is accredited by the Council on Social Work Education (CSWE).

## Unique Requirements of the College

Incoming freshmen entering the College as an undetermined major or pre-major student or requires extensive remedial/developmental course work, or is a student returning to the College after a suspension, the student must complete HAHS 1500 Introduction to the Bitonte College of Health and Human Services or HAHS 1510 Investigations into Social Classes in America within the student's first 30 semester hours of coursework. HAHS 1510 is taken by students who are admitted to the University conditionally (restricted admissions).

Students need to be aware that many of the programs in the College require a criminal background check. Some require drug testing and a physical fitness

examination. In a few cases, there may be a requirement for a psychological evaluation. In addition to programs requiring some or all of the checks/evaluations listed above, some of the agencies where students complete clinical training, internships, or other related activities may also require these checks/evaluations. If you are concerned that you may not be able to complete a program or one of its requirements due to any of these checks/evaluations, please speak with an academic advisor or the chairperson of the department.

## Organization/Majors

The Bitonte College of Health and Human Services consists of eight departments:

- Criminal Justice and Forensic Sciences
- Health Professions
- Human Ecology
- Kinesiology and Sport Science
- Military Science
- Nursing
- Physical Therapy
- Social Work

Graduate programs are offered by the Departments of Criminal Justice and Forensic Sciences, Health Professions, Kinesiology and Sport Science, Nursing, Physical Therapy and Social Work. The Northeastern Ohio Universities Master of Public Health program operates through a partnership of YSU, The University of Akron, Cleveland State University, Kent State University, and Northeast Ohio Medical University (NEOMED).

The eight departments are listed below with their associate, baccalaureate, and master's offerings. Students whose needs are not completely met by existing conventional programs may wish to investigate and apply for the Individualized Curriculum Program (see the Academic Policies and Procedures section).

## Department of Criminal Justice and Forensic Sciences

- Basic Peace Officer Training Academy (Certificate)
- Criminal Justice (AAS, BSAS, MS)
- Forensic Science (BSAS) [In collaboration with the College of Liberal Arts and Social Sciences and the College of Science, Technology, Engineering, and Mathematics]

## Department of Health Professions

- Allied Health (BSAS)<sup>1</sup>
- Medical Laboratory Technology (AAS)<sup>2</sup>
- Medical Laboratory Science (BSAS)<sup>2</sup>
- Public Health (BSAS)<sup>3</sup>
- Dental Hygiene (BSDH)
- Paramedic (Certificate)<sup>2</sup>
- Emergency Medical Services (AAS)
- Health and Human Services (MHHS)
- Health Information Systems (Undergraduate Certificate)
- Healthcare Management (Graduate Certificate)
- Medical Assisting Technology (AAS)
- Polysomnography (Certificate)
- Public Health (MPH)
- Respiratory Care (BSRC, MRC)

## Department of Human Ecology

- Dietetic Technician (AAS)
- Family and Consumer Sciences Education (BSEd)<sup>3</sup>
- Family and Consumer Studies (BSAS)
- Coordinated Program in Dietetics (BSAS)
- Didactic Program in Dietetics (BSAS)
- Hospitality Management Technology (AAS, BSAS)
- Merchandising: Fashion and Interiors (BSAS)
- Early Childhood Associate/Pre-Kindergarten (AAS)

## Department of Kinesiology and Sport Science

- Exercise Science (BSAS)
- Health and Wellness (minor only)
- Masters of Science in Athletic Training (MAT)<sup>2</sup>

## Department of Military Science

- Military Science (minor only)
- Army ROTC program<sup>4</sup>

### Aerospace Studies Program

#### Air Force ROTC Program

ROTC students are allowed certain modifications of the requirements, as explained in the Military Science section. ROTC programs are offered in agreement with Kent State University.

## Department of Nursing

### Bachelor of Science in Nursing Programs (BSN)<sup>2</sup>:

- Entry-level (BSN)
- Online RN-BSN Completion Program for licensed RN's only (BSN)

### Master of Science in Nursing Programs (MSN)<sup>2</sup>:

- Family Nurse Practitioner (FNP)
- Nurse Anesthesia (in collaboration with St. Elizabeth Health Center School for Nurse Anesthetists, Inc.)
- Nurse Education

### Certificates<sup>2</sup>:

- School Nursing (Post Baccalaureate)
- Nurse Education (Post Master's)
- Adult-Gerontology Acute Care Nurse Practitioner (Post Master's)

## Department of Physical Therapy

### Physical Therapy (DPT)<sup>2</sup>

## Department of Social Work

### Social Services Technology (AAS)

### Social Work (BSW, MSW)<sup>2</sup>

It is the student's responsibility to satisfy all of the graduation requirements for the degree sought. These consist of:

- The pre-college or preparatory courses for each degree as covered in the Academic Policies and Procedures section.

- The courses and other requirements to be completed in the University as explained in the Academic Policies and Procedures section.
- The specific curriculum requirements of a given program.

Course descriptions can be found in a separate section in the *Undergraduate Catalog*.

- <sup>1</sup> This degree is made available at Cuyahoga Community College and Lorain County Community College in addition to the YSU campus offerings.
- <sup>2</sup> Restricted admission; see department for further information.
- <sup>3</sup> For the Institutional Report on the Quality of Teacher Preparation, Title II, Higher Education Act, please see Appendix C of the *Undergraduate Catalog*.
- <sup>4</sup> ROTC students are allowed certain modifications of the requirements, as explained in the Military Science section. ROTC programs are offered in agreement with Kent State University.

## Department of Criminal Justice and Forensic Sciences

(330) 941-3279

Youngstown State University offers two undergraduate programs in Criminal Justice:

- a two-year program in Criminal Justice leading to the degree Associate of Applied Science
- a four-year program leading to the degree Bachelor of Science in Applied Science with a major in Criminal Justice

The four-year degree is built upon a core-track concept with emphasis (track) areas in law enforcement, corrections, legal processes, and loss prevention/assets protection.

The department also offers eight (8) minors in several emphasis areas.

In each undergraduate area and certificate program, a grade of "C" or better must be received in each required Criminal Justice and Forensic Sciences course.

A graduate program is also available leading to the Master of Science degree in Criminal Justice. Refer to the Graduate Catalog for details.

## Admission Policy

Students wishing to transfer into the Department of Criminal Justice and Forensic Sciences must have a cumulative GPA of at least 2.0. **Note: individuals with a felony, drug, and/or domestic violence conviction will experience difficulty gaining employment in the criminal justice and forensic sciences or forensic science field.** Students with misdemeanor convictions should seek advice from an advisor in the Criminal Justice and Forensic Sciences program. Students with juvenile sex offense convictions should also seek advice.

## Retention Policy

The Department of Criminal Justice and Forensic Sciences expects its majors and students enrolled in its courses to engage in **legal**, ethical, professional, and civil behavior which respects the rights of all persons. Disruptive and inappropriate behavior (as defined in department, college, or University policy) may lead to removal from, or non-acceptance into, the department as a major or as an enrolled student in one of its courses. YSU requires a 2.0 overall GPA in order to graduate.

For more information, visit the *Department of Criminal Justice and Forensic Sciences*.

## Forensic Science Program

*Multidisciplinary program between the departments of Criminal Justice and Forensic Sciences, Biological Sciences, Chemistry, and Sociology and Anthropology.*

Youngstown State University offers an undergraduate degree, the Bachelor of Science in Applied Science, in Forensic Science. The program is housed in the Department of Criminal Justice and Forensic Sciences. Forensic science can be broadly defined as the application of science to law. This program is designed to give students both a theoretical and practical background in the scientific, legal, and investigative aspects of forensic science. Graduates of the program are prepared for continued education in graduate programs or for immediate employment in forensic science related facilities. Many careers in or related to forensic science require academic preparation beyond the undergraduate level. Students should be prepared to pursue advanced degrees within their discipline.

### Admission Policy

Students wishing to transfer into the forensic science program must have and maintain a cumulative GPA of at least 2.5. **Note: individuals with a felony, drug, and/or domestic violence conviction will experience difficulty gaining employment in the fields of forensic science and/or criminal justice.** Students with misdemeanor convictions or juvenile sex offense convictions should seek advice from an advisor in the Department of Criminal Justice and Forensic Sciences.

### Internships

YSU's forensic science program requires a six semester hour internship experience which will provide students with the opportunity to integrate academic studies with the daily operations of a forensic science related facility. Each semester hour requires approximately 45 on-site hours. Internships also foster the development of networking relationships with practitioners who can assist in procuring future employment. Certain criminal convictions may prohibit students from being eligible for an internship experience.

For more information, visit the Forensic Science Program. (p. 379)

## Police Academy and Internships

YSU's Criminal Justice and Forensic Sciences department now offers a full-service police academy, Basic Peace Officer Training Academy. Admission to the academy is open to all qualified applicants who meet admission standards of YSU and the Ohio Peace Officer Training Commission. All instructors in the Academy are certified by the Ohio Peace Officer Training Commission and meet all of the requirements to teach in the Basic Police Academy. YSU students who successfully complete the Academy will receive 16 semester hours of credit and a letter from the Ohio Peace Officers Training Commission that will qualify them for certification upon being commissioned. The new curriculum consists of a minimum 558 hours of training. Application packets can be picked up at the Academy Office, Cushwa Hall Room 2361.

YSU's Criminal Justice and Forensic Sciences Department has an internship experience that provides students with an opportunity to integrate academic studies with the daily operation of a Criminal Justice and Forensic Sciences agency. Internships also foster the development of networking relationships with practitioners who can assist in procuring future employment. **Certain criminal convictions may prohibit students from being eligible for an internship experience.** Student interns register for 3 to 12 semester credit hours. Each credit hour requires approximately 45 on-site hours. This program is for seniors. Students can enroll in the Police Academy or an internship, but not both.

### Chair

**Patricia Bergum Wagner, J.D.**, Associate Professor, Chair

### Professor

**Christopher M. Bellas, Ph.D.**, Associate Professor

**Susan Ann Clutter, M.F.S.**, Associate Professor

**Gordon G. Frissora, Ph.D.**, Associate Professor

**John M. Hazy, Ph.D.**, Professor

**Tammy A. King, Ph.D.**, Professor

**Monica Merrill, Ph.D.**, Assistant Professor

**Christian C. Onwudiwe, Ph.D.**, Assistant Professor

**Richard Lee Rogers, Ph.D.**, Assistant Professor

**Robert E. Wardle, M.S.**, Associate Professor

## Majors

- AAS in Criminal Justice, Law Enforcement Track (p. 371)
- AAS in Criminal Justice, Corrections Track (p. 370)
- AAS in Criminal Justice, Loss Prevention/Assets Protection Track (p. 370)
- BSAS in Criminal Justice, Law Enforcement Track (p. 375)
- BSAS in Criminal Justice, Corrections Track (p. 373)
- BSAS in Criminal Justice, Loss Prevention/Assets Protection Track (p. 378)
- BSAS in Criminal Justice, Legal Process Track (p. 376)
- BSAS in Criminal Justice, Generalist Track (p. 372)
- BSAS in Forensic Science (p. 379)

## Minors

- Minor in Criminal Justice - Corrections (p. 381)
- Minor in Criminal Behavior (p. 381)
- Minor in Criminal Justice Ethics (p. 381)
- Minor in Criminal Justice System (p. 381)
- Minor in Criminal/Legal Processes (p. 381)
- Minor in Forensic Science (p. 382)
- Minor in Juvenile Justice System (p. 382)
- Minor in Law Enforcement (p. 382)
- Minor in Loss Prevention and Assets Protection (p. 382)

## Certificates

- Certificate in Basic Peace Officer Training (p. 381)

### CJFS 1500 Introduction to Criminal Justice 3 s.h.

Overview of the American criminal justice process with emphasis on its constituent foundations, its constitutional limits, and the rights of the individual from arrest through sentencing and release.

**Gen Ed:** Social Science.

### CJFS 1510 Survey of Forensic Sciences 3 s.h.

Overview of history, evolution, and current status. Discussion of training, education, certification, accreditation, and legal issues. Designed to be accessible to students without a science background and provide an introduction to forensic science for those considering further studies.

### CJFS 2601 Policing 3 s.h.

The evolution, structure, and function of modern police organizations; the role of police in a democratic society; the impact of social, political, and economic influences; contemporary practices and controversies.

**Prereq.:** CJFS 1500.



**CJFS 2602 Criminal Courts 3 s.h.**

Structure and function of criminal courts in American society, perceptions of national commissions; organization, administration, and caseload relationships with appropriate social agencies.

**Prereq.:** CJFS 1500 or permission of instructor.

**CJFS 2603 Corrections 3 s.h.**

Development and description of the American correctional systems' history and philosophy; the constitutional foundations of its control, and the rights of those within it. Overview of treatment approaches.

**Prereq.:** CJFS 1500.

**CJFS 3700 Forensic Fire and Explosives Investigation 3 s.h.**

Principles of fire science including fire detection, suppression, and investigation of both fire and explosion scenes. Special emphasis on concepts of fire progression, cause and origin determinations, arson investigation, and bombings.

**Prereq.:** CJFS 1500 or CJFS 1510.

**CJFS 3702 Correctional Strategies 4 s.h.**

Contemporary theory, practice, and research findings in the administration of juvenile and adult corrections. Community-based programs, including probation/parole/post-release control; institutional resources examined within the perspectives of prevention, control, and rehabilitation of the criminal offender. Must be a Criminal Justice major or have permission of chairperson.

**Prereq.:** CJFS 2603.

**Concurrent with:** CJFS 3702L.

**CJFS 3702L Correctional Strategies Laboratory 2 s.h.**

Contact, observation, and on-site examination and comparison of community programs and institutional facilities. On-site 6 hours per week for 7 weeks (students are divided into two groups). Must be a Criminal Justice major or have permission of chairperson.

**Prereq.:** CJFS 2603.

**Concurrent with:** CJFS 3702.

**CJFS 3710 Social Statistics 3 s.h.**

Measurement and interpretation of social data by use of descriptive techniques.

**Prereq.:** CJFS 1500.

**Cross-listed:** SOC 3701.

**CJFS 3712 Criminal Justice Research 3 s.h.**

Analysis of the major components of social research, including research design, sampling, measurement, data collection, analysis, and interpretation of findings.

**Prereq.:** CJFS 3710 or STAT 2601 or equivalent.

**CJFS 3714 Forensic Science: Crime Scene Investigation 2 s.h.**

An introduction to the legal and practical aspects of crime scene investigation. Emphasis on the value of physical evidence and the skills and tools needed to recognize, collect and preserve physical evidence found at a crime scene.

**Prereq.:** CJFS 1510 and sophomore standing.

**Concurrent with:** CJFS 3714L.

**CJFS 3714L Forensic Science: Crime Scene Investigation Laboratory 1 s.h.**

Laboratory section designed to teach the practical skills employed by criminalists collecting evidence at a crime scene. Students will gain experience using tools, techniques and procedures required to recognize and collect evidence by completing practical exercises.

**Prereq.:** CJFS 1510 and sophomore standing.

**Concurrent with:** CJFS 3714.

**CJFS 3715 Criminal Justice Management Concepts 3 s.h.**

Modern criminal justice management theory; organizational behavior, organizational development, personnel management, executive decision making, supervision problems. Must be a Criminal Justice major or have permission of chairperson.

**Prereq.:** CJFS 2601 or CJFS 2602 or CJFS 2603.

**CJFS 3716 Forensic Science Evidence Analysis 2 s.h.**

Serves as an introduction to the techniques, instrumentation and procedures used in the examination and analysis of physical evidence in a forensic laboratory setting and the legal aspects regarding the use of laboratory reports in the investigation process.

**Prereq.:** CJFS 3714, CJFS 3714L.

**Concurrent with:** CJFS 3716L.

**CJFS 3716L Forensic Science Evidence Analysis Laboratory 1 s.h.**

Laboratory section designed to familiarize students with instrumentation that is commonly used in the examination and analysis of physical evidence. Students will gain experience with the tools, techniques and procedures used for examining physical evidence through practical exercises.

**Prereq.:** CJFS 3714, CJFS 3714L.

**Concurrent with:** CJFS 3716.

**CJFS 3718 Family Law 3 s.h.**

Fundamental elements of family law, including premarital contracts, traditional and nontraditional marriages and families, procreation rights, legitimacy and paternity, adoption, divorce and separation, property division and support, custody and termination of parental rights, juvenile law, intra-family tort liability and domestic violence.

**Prereq.:** SOC 1500.

**Cross-listed:** CHFM 3718.

**CJFS 3719 Criminal Law 3 s.h.**

Development, theories, and purposes of criminal law; elements of a crime, parties to a crime.

**Prereq.:** CJFS 2602.

**CJFS 3720 Legal Research 3 s.h.**

In-depth study and legal research of case law, statutes, rules and regulations at the federal and state levels. Emphasis on how to find and use primary and secondary authority, how to conduct legal research, in-depth legal writing in areas such as torts, contracts, real estate, and criminal law.

**Prereq.:** CJFS 2602 or permission.

**CJFS 3721 Evidence 3 s.h.**

Admissibility of evidence, the hearsay rule and its exceptions, opinion evidence, circumstantial evidence, documentary evidence, presumptions, corpus delicti, and evidentiary privileges. Must be a Criminal Justice or Forensic Science major.

**Prereq.:** CJFS 2602.

**CJFS 3735 Crime and Delinquency 3 s.h.**

Study of the social context of crime in society, including a review of historical theories offered in explanation of criminal behavior. Review of social and psychological factors underlying delinquency, touching on treatment and preventive measures.

**Prereq.:** PSYC 1560 or SOC 1500 or CJFS 3736.

**CJFS 3736 Criminal Victimization 3 s.h.**

Dynamics of the victim-offender relationships within the Criminal Justice System. Review of advocacy programs including information on victim compensation/assistance programs. Examination of society's attitudes towards victims. Review of current laws advocacy for compensation of crime victims.

**Prereq.:** PSYC 1560 or SOC 1500 or CJFS 1500.

**CJFS 3740 Criminal Justice Information Systems 3 s.h.**

Information theory and practice applied to criminal justice agencies; automated systems in policing, courts, and corrections at the federal, state, and local levels; problems and constitutional constraints. Microcomputer and Internet assignments.

**Prereq.:** CJFS 1500.

**CJFS 3751 Prevention Strategies 3 s.h.**

Concepts and strategies of crime prevention, the protection of assets in the public and private sectors. Must be CJFS major, or have permission of chairperson.

**Prereq.:** CJFS 2601.

**CJFS 3752 Race, Ethnicity and Crime in America 3 s.h.**

A critical analysis of current research and theories of racial and ethnic discrimination within the American criminal justice system. The discussion will center on issues relating to: patterns of criminal behavior and victimization, police practices, court processing and sentencing, the death penalty, and correctional programs.

**Prereq.:** CJFS 1500, SOC 1500, or PSYC 1560.

**CJFS 3765 Human Relations 3 s.h.**

Methods of coping with conflicts arising from law violation intervention; programs for improving interpersonal relations between police and the community.

**Prereq.:** SOC 1500 and PSYC 1560 plus 9 s.h. in CJFS.

**CJFS 3777 Ohio Peace Officer Basic Training 16 s.h.**

The Ohio Attorney General's Office, Peace Officer Training Academy's requirements for peace/police officers are taught in the academy. The training academy at YSU consists of approximately 585 classroom hours (5 days a week, 8 hours a day for 15 weeks, plus a minimum of three weekends). Upon completion, students receive eligibility from the Ohio Peace Officer Training Commission for certification if they successfully pass the physical, skills, and written exams.

**Prereq.:** Senior standing and permission from the Academy Coordinator.

**CJFS 3799 Directed Individual Study 1-5 s.h.**

Individual study or field research of a special topic related to the criminal justice field. Application must be made to the department prior to registration. May be repeated once for a maximum of 6 s.h.

**Prereq.:** Senior standing and 15 s.h. of CJFS and approval of instructor.

**CJFS 4800 Senior Seminar 3 s.h.**

Overview of the criminal justice system in the United States. Review of constitutional issues, discussion of contemporary issues. Serves as the criminal justice generalist track senior capstone course. Portfolios and resumes prepared, assessment exam. Must be a Criminal Justice major or have permission of chairperson.

**Prereq.:** Senior standing.

**CJFS 4803 Correctional Case Management and Treatment 3 s.h.**

Theory and techniques of counseling and interviewing the correctional client including case management. Simulated field and clinical situations to provide experience in interviewing and report writing. Portfolios and resumes prepared, assessment exam. Must be a Criminal Justice major or have permission of chairperson.

**Prereq.:** CJFS 3702.

**CJFS 4807 Criminal Justice Internship 3-12 s.h.**

Field experiences in an appropriate criminal justice agency under the direction of qualified and experienced professionals. Grading is CR/NC. May be repeated once for a maximum of 12 s.h.

**Prereq.:** Senior standing in CJFS and specific emphasis area courses per department guidelines.

**CJFS 4848 Loss Prevention and Assets Protection Administration 3 s.h.**

Security standards, policy, and regulations at the state and federal levels as they impact on the security operations. Administrative decisions regarding security program. Plant protection, safety and security; credit and insurance investigative procedures. Portfolios and resumes prepared, assessment exam.

**Prereq.:** CJFS 3751 and senior standing in criminal justice or permission of chairperson.

**Gen Ed:** Capstone.

**CJFS 4850 Special Topics in Criminal Justice 3-5 s.h.**

Contemporary issues in criminal justice. Topics are announced prior to enrollment.

**Prereq.:** Senior standing or permission of instructor.

**CJFS 4850I Special Topics in Criminal Justice Israel 3-5 s.h.**

Contemporary issues in criminal justice. Topics are announced prior to enrollment.

**Prereq.:** Senior standing or permission of instructor.

**CJFS 4851 Women and Justice 3 s.h.**

Examines the historical development and current women's issues as they related to the justice system. Women's roles in the legal system, prisons (as staff and offenders), victims and perpetrators of violence, policing society and organized crime. Female juvenile delinquency and controversial topics such as abortion and capital punishment.

**Prereq.:** Senior standing or permission of the chair.

**CJFS 4870 Law Enforcement Administration 3 s.h.**

Detailed examination of the administration of line and staff services of law enforcement agencies and the role of technology in administration. Portfolios and resumes prepared, assessment exam. Must be a Criminal Justice major or have permission of chairperson.

**Prereq.:** CJFS 3715 and senior standing.

**CJFS 4890 Judicial Administration 3 s.h.**

Court management examined in light of structure, judicial responsibility, and inherent power of courts. Case flow, case management, automation, and judicial staffing. Portfolios and resumes prepared, assessment exam.

**Prereq.:** CJFS 3715 and CJFS 3719 and senior standing in criminal justice or permission of chairperson.

**CJFS 5802 Corrections Law and Liability 3 s.h.**

Analysis and examination of legal mandates and restrictions affecting the field of corrections. History of the development of offender rights, current issues surrounding offender rights, and future concerns in this area. Jail and prison standards, accreditation standards, case law, and liability concerns.

**Prereq.:** CJFS 3702 or approval of instructor.

**CJFS 5814 Practice and Ethics in Forensic Science 3 s.h.**

Overview of the forensic science discipline as it relates to the criminal justice system including discussion of legal aspects, constitutional considerations, expert testimony, the role of the expert witness, and ethical standards and dilemmas. Also includes discussion of current events and the evolution and future of the forensic sciences.

**Prereq.:** CJFS 3714 and CJFS 3714L.

**Gen Ed:** Capstone.

**CJFS 5820 Advanced Legal Research 3 s.h.**

Advanced techniques in conducting legal research using standard reference tools as well as automated on-line services and the Internet. Analysis of findings of legal issues related to criminal justice, report and memoranda writing utilizing the Harvard University System of Citations, legal forms and terminology.

**Prereq.:** CJFS 3720 or approval of instructor.

**CJFS 5825 Criminal Procedures and Constitutional Issues 3 s.h.**

Constitutional foundations of the American criminal justice process with special emphasis on recent Supreme Court decisions. Legal and practical applications of the laws of arrest, criminal procedure, search and seizure, court structures, and federal civil rights.

**Prereq.:** CJFS 3719 and must be a criminal justice major or have permission of chairperson.

**CJFS 5831 Violence in America 3 s.h.**

Analysis of violence in America including official and unofficial statistics, types and levels of violence, research findings, and profiles of offenders. Case analysis of domestic violence, juvenile violence, gangs, and other forms of violence.

**Prereq.:** CJFS 3735.

**CJFS 5865 Gathering and Using Information in Criminal Justice 3 s.h.**

Specialized communication skills to prepare criminal justice practitioners in information-gathering techniques, written presentation techniques, verbal and nonverbal communication skills within constitutional guidelines.

**Prereq.:** CJFS 3712 or CJFS 3765.

**CJFS 5875 Juvenile Justice System 3 s.h.**

In-depth analysis of the specialized agencies and procedures developed to deal with problems of juveniles from a historical and philosophical perspective. Consideration of the juvenile court, community-based programs, institutionalization.

**Prereq.:** Senior standing.

**CJFS 5892 Comparative and International Criminal Justice Systems 3 s.h.**

An examination of how countries' criminal justice systems are shaped and molded by elements of culture, religion, and political ideology of the area. Emphasis will be placed on comparing and contrasting the selected countries' criminal justice systems with those found in the United States of America.

**Prereq.:** Senior standing or permission of the chair.

## Learning Outcomes

The student learning outcomes for majors within the Criminal Justice and Forensic Sciences Department are as follows:

- Students will identify the key aspects to the elements of law (Certificate in Basic Police Training and job preparation).
- Students will develop knowledge about criminological theories and public policy practices (legal, economic, and social) that influence the American Criminal Justice and Forensic Sciences system (Associate of Applied Science degree in Criminal Justice and Forensic Science).
- Students will communicate their knowledge about criminological theories and public policy practices (legal, economic, and social) that influence the institutions of the American Criminal Justice and Forensic Sciences system through details of its subsystems-policing, courts, and corrections (Bachelor of Science in Applied Science in Criminal Justice and Forensic Science).
- Students will understand the basic principles of the scientific disciplines (i.e. chemistry and biology) included in their curriculum. (Bachelor of Science in Applied Science in Forensic Science).

## Associate of Applied Science in Criminal Justice, Corrections Track

The Associate of Applied Science (AAS) degree in Criminal Justice is considered appropriate for persons preparing for employment in many municipal, state, and private police agencies as well as persons considering employment in local, state, federal, and private correctional facilities. The associate degree also is a stepping stone for those students who plan to go on for a bachelor's degree. The associate degree in Criminal Justice has three tracks:

- law enforcement track
- corrections track
- loss prevention/assets protection track

The program requires 60 semester hours:

- 34 hours in general degree requirements
- 18 hours in Criminal Justice and Forensic Sciences core courses
- 8 hours in the selected track

The Associate of Applied Science degree can be completed in four semesters if students average 15 hours per semester.

Transfer students must take at least 20 hours of YSU courses. Sixteen (16) semester hours of Criminal Justice and Forensic Sciences course work must be taken at Youngstown State University.

The associate degree is built upon core/track concept with emphasis (track) areas in:

- law enforcement
- corrections
- loss prevention/assets protection

Core courses for an associate degree are:

COURSE	TITLE	S.H.
CJFS 2601	Policing	3

CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3735	Crime and Delinquency	3
CJFS 3719	Criminal Law	3

Students choose an additional 12 credit hours from one of the emphasis areas. See department for course options.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
SOC 1500	Introduction to Sociology	3
Arts and Humanities		
PSYC 1560	General Psychology	3
PHIL 2625	Introduction to Professional Ethics	3
Natural Sciences (with lab)		
<b>Major Requirements</b>		
CJFS 1500	Introduction to Criminal Justice	3
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3719	Criminal Law	3
CJFS 3735	Crime and Delinquency	3
<b>Elective</b>		
<b>Corrections Track</b>		
Select 12 s.h. from the following:		12
CJFS 3702 & 3702L	Correctional Strategies and Correctional Strategies Laboratory	
CJFS 3715	Criminal Justice Management Concepts	
CJFS 3736	Criminal Victimization	
CJFS 3740	Criminal Justice Information Systems	
CJFS 3765	Human Relations	
CJFS 4803	Correctional Case Management and Treatment	
<b>Total Semester Hours</b>		<b>60</b>

## Learning Outcomes

1. Students can discriminate the influence of the CJ system at the subsystem levels (policing, courts, and corrections).
2. Students can apply CJ theories.
3. Students can analyze legal situations.

## Associate of Applied Science in Criminal Justice, Loss Prevention/Assets Protection Track

The Associate of Applied Science (AAS) degree in Criminal Justice is considered appropriate for persons preparing for employment in many municipal, state, and private police agencies as well as persons considering employment in local, state, federal, and private correctional facilities. The associate degree also is a stepping stone for those students who plan to go on for a bachelor's degree. The associate degree in Criminal Justice has three tracks:

- law enforcement track
- corrections track
- loss prevention/assets protection track

The program requires 60 semester hours:

- 34 hours in general degree requirements
- 18 hours in Criminal Justice and Forensic Sciences core courses
- 8 hours in the selected track

The Associate of Applied Science degree can be completed in four semesters if students average 15 hours per semester.

Transfer students must take at least 20 hours of YSU courses. Sixteen (16) semester hours of Criminal Justice and Forensic Sciences course work must be taken at Youngstown State University.

The associate degree is built upon core/track concept with emphasis (track) areas in:

- law enforcement
- corrections
- loss prevention/assets protection

Core courses for an associate degree are:

COURSE	TITLE	S.H.
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3735	Crime and Delinquency	3
CJFS 3719	Criminal Law	3

Students choose an additional 12 credit hours from one of the emphasis areas. See department for course options.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
SOC 1500	Introduction to Sociology	3
Arts and Humanities		
PSYC 1560	General Psychology	3
PHIL 2625	Introduction to Professional Ethics	3
Natural Sciences (with lab)		
4		
<b>Major Requirements</b>		
CJFS 1500	Introduction to Criminal Justice	3
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3735	Crime and Delinquency	3
CJFS 3719	Criminal Law	3
<b>Elective</b>		
3		
<b>Loss Prevention/Assets Protection</b>		
Select 12 s.h. from the following: 12		
CJFS 1510	Survey of Forensic Sciences	
CJFS 3700	Forensic Fire and Explosives Investigation	

CJFS 3714 & 3714L	Forensic Science: Crime Scene Investigation and Forensic Science: Crime Scene Investigation Laboratory
CJFS 3715	Criminal Justice Management Concepts
CJFS 3736	Criminal Victimization
CJFS 3740	Criminal Justice Information Systems
CJFS 3751	Prevention Strategies
CJFS 3765	Human Relations
CJFS 4848	Loss Prevention and Assets Protection Administration
<b>Total Semester Hours</b>	<b>60</b>

## Learning Outcomes

1. Students can discriminate the influence of the CJ system at the subsystem levels (policing, courts, and corrections).
2. Students can apply CJ theories.
3. Students can analyze legal situations.

## Associate of Applied Science in Criminal Justice, Law Enforcement Track

The Associate of Applied Science (AAS) degree in Criminal Justice is considered appropriate for persons preparing for employment in many municipal, state, and private police agencies as well as persons considering employment in local, state, federal, and private correctional facilities. The associate degree also is a stepping stone for those students who plan to go on for a bachelor's degree. The associate degree in Criminal Justice has three tracks:

- law enforcement track
- corrections track
- loss prevention/assets protection track

The program requires 60 semester hours:

- 34 hours in general degree requirements
- 18 hours in Criminal Justice and Forensic Sciences core courses
- 8 hours in the selected track

The Associate of Applied Science degree can be completed in four semesters if students average 15 hours per semester.

Transfer students must take at least 20 hours of YSU courses. Sixteen (16) semester hours of Criminal Justice and Forensic Sciences course work must be taken at Youngstown State University.

The associate degree is built upon core/track concept with emphasis (track) areas in:

- law enforcement
- corrections
- loss prevention/assets protection

Core courses for an associate degree are:

COURSE	TITLE	S.H.
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3735	Crime and Delinquency	3
CJFS 3719	Criminal Law	3

Students choose an additional 12 credit hours from one of the emphasis areas. See department for course options.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
SOC 1500	Introduction to Sociology	3
Arts and Humanities		
PSYC 1560	General Psychology	3
PHIL 2625	Introduction to Professional Ethics	3
Natural Sciences (with lab)		
<b>Major Requirements</b>		
CJFS 1500	Introduction to Criminal Justice	3
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3735	Crime and Delinquency	3
CJFS 3719	Criminal Law	3
<b>Elective</b>		
<b>Law Enforcement Track</b>		
Select 12 s.h. from the following:		12
CJFS 1510	Survey of Forensic Sciences	
CJFS 3700	Forensic Fire and Explosives Investigation	
CJFS 3714 & 3714L	Forensic Science: Crime Scene Investigation and Forensic Science: Crime Scene Investigation Laboratory	
CJFS 3715	Criminal Justice Management Concepts	
CJFS 3736	Criminal Victimization	
CJFS 3740	Criminal Justice Information Systems	
CJFS 3765	Human Relations	
CJFS 3777	Ohio Peace Officer Basic Training	
CJFS 4870	Law Enforcement Administration	
<b>Total Semester Hours</b>		<b>60</b>

## Learning Outcomes

1. Students can discriminate the influence of the CJ system at the subsystem levels (policing, courts, and corrections).
2. Students can apply CJ theories.
3. Students can analyze legal situations.

## Bachelor of Science in Applied Science in Criminal Justice, Generalist Track

A Bachelor of Science in Applied Science (BSAS) degree in Criminal Justice requires a minimum of 120 semester hours. All Bachelor of Science in Applied Science students must complete a minimum of 45 semester hours of Criminal Justice courses of which 36 semester hours or more must be taken from upper-division courses. The courses are listed as CJFS courses. This degree can be earned in eight semesters if students average 15 hours per semester.

Transfer students must complete a minimum of 18 hours in Criminal Justice and Forensic Sciences courses at YSU. All majors must complete:

- the core requirements:

COURSE	TITLE	S.H.
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3710	Social Statistics	3
CJFS 3712	Criminal Justice Research	3
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3719	Criminal Law	3
CJFS 3735	Crime and Delinquency	3
<b>Total Semester Hours</b>		<b>24</b>

- 27 hours of CJFS electives, (21 hours of 37XX or above and 6 hours of 48XX or above as designated on the department's curriculum sheet) plus CJFS 4800 Senior Seminar.

## Generalist Track

A generalist track is available for transfer students and students seeking a nontraditional area of study such as victim's rights and juvenile justice. This track is available to students at institutions participating in the interactive distance learning (IDL) agreements with the University. Department approval and 15 hours of course work are required.

A grade of C or better must be received in each required Criminal Justice and Forensic Sciences course in order to satisfy the departmental requirements for the degree.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
MATH 2623	Quantitative Reasoning	3
Natural Science (2 courses, 1 with lab)		
PHIL 2625	Introduction to Professional Ethics	3
or PHIL 2627	Law and Criminal Justice Ethics	
Arts and Humanities		
SOC 1500	Introduction to Sociology	3
CJFS 1500	Introduction to Criminal Justice	3
Social and Personal Awareness		
PSYC 1560	General Psychology	3
<b>Major Requirements</b>		
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3710	Social Statistics	3
CJFS 3712	Criminal Justice Research	3
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3719	Criminal Law	3
CJFS 3735	Crime and Delinquency	3
<b>Criminal Justice Upper Division Electives, 37XX or higher - 15 s.h.</b>		<b>15</b>
<b>Elective or (Optional) Minor-must have 24 s.h. total</b>		
Select 24 s.h. of Minor or additional electives.		24
<b>Generalist Emphasis - 15 s.h.</b>		
CJFS 37XX		3
CJFS 37XX		3

CJFS 48XX/58XX	3
CJFS 48XX/58XX	3
CJFS 4800 <sup>1</sup>	3
<b>Total Semester Hours</b>	<b>120</b>

- <sup>1</sup> Capstone course.
- <sup>2</sup> Must have approval from CJFS Chair. Generalist emphasis is not eligible for CJFS 3777.
- <sup>3</sup> Alternate option is to complete OPPTA.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
CJFS 1500	Introduction to Criminal Justice	3
SOC 1500	Introduction to Sociology	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>14</b>

<b>Spring</b>		
ENGL 1551	Writing 2	3
CJFS 2602	Criminal Courts	3
CJFS 2601	Policing	3
PSYC 1560	General Psychology	3
Natural Science Elective with Lab		4
<b>Semester Hours</b>		<b>16</b>

<b>Year 2</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
CJFS 2603	Corrections	3
CJFS 3719	Criminal Law	3
CJFS 3700 or higher-Level Elective		3
Arts and Humanities Elective 15XX		3
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3735	Crime and Delinquency	3
CJFS 3700 or higher-Level Elective		3
CJFS 3700 or higher-Level Elective		3
PHIL 2625	Introduction to Professional Ethics	3
<b>Semester Hours</b>		<b>15</b>

<b>Year 3</b>		
<b>Fall</b>		
CJFS 3700 or higher Elective		3
CJFS 3710	Social Statistics	3
CJFS 3700 or higher-Level Elective		3
Natural Science		3
Social and Personal Awareness		3
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
CJFS 3700 or higher-Level Elective		3
CJFS 3712	Criminal Justice Research	3
CJFS 3700 or higher-Level Elective		3
Social and Personal Awareness		3
Elective		3
<b>Semester Hours</b>		<b>15</b>

<b>Year 4</b>		
<b>Fall</b>		
CJFS 4800	Senior Seminar	3
CJFS 4800 or higher-Level Elective		3
Elective		3
Elective		3
CJFS 4800 or higher-Level Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
Elective		3
CJFS 3700 or higher-Level Elective		3
CJFS 3700 or higher-Level Elective		3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

- Students can discriminate the influence of the CJ system at the subsystem levels (policing, courts, and corrections)
- Students can apply CJ theories.
- Students can analyze legal situations.
- Students can assess public policy as it relates to the CJ system.

## Bachelor of Science in Applied Science in Criminal Justice, Corrections Track

A Bachelor of Science in Applied Science (BSAS) degree in Criminal Justice requires a minimum of 120 semester hours. All Bachelor of Science in Applied Science students must complete a minimum of 45 semester hours of Criminal Justice courses of which 36 semester hours or more must be taken from upper-division courses. The courses are listed as CJFS courses. This degree can be earned in eight semesters if students average 15 hours per semester.

Transfer students must complete a minimum of 18 hours in Criminal Justice courses at YSU. All majors must complete:

- the core requirements:

COURSE	TITLE	S.H.
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3710	Social Statistics	3
CJFS 3712	Criminal Justice Research	3
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3719	Criminal Law	3
CJFS 3735	Crime and Delinquency	3
<b>Total Semester Hours</b>		<b>24</b>

- the courses required in the student's chosen emphasis area
- 18 hours of CJFS electives not in the emphasis area (as designated on the department's curriculum sheet)

The purpose of each emphasis area is as follows:

## Corrections Track

The corrections track is offered for students preparing for a career in probation, parole, or institutional services with either adults or juveniles.

Courses required:

COURSE	TITLE	S.H.
CJFS 3702 & 3702L	Correctional Strategies and Correctional Strategies Laboratory	6
CJFS 5802	Corrections Law and Liability	3
CJFS 4803	Correctional Case Management and Treatment	3
<b>Total Semester Hours</b>		<b>12</b>

A grade of C or better must be received in each required Criminal Justice and Forensic Sciences course in order to satisfy the departmental requirements for the degree.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
MATH 2623	Quantitative Reasoning	3
Natural Science (2 courses, 1 with lab)		7
PHIL 2625	Introduction to Professional Ethics	3
or PHIL 2627	Law and Criminal Justice Ethics	
Arts and Humanities		3
SOC 1500	Introduction to Sociology	3
CJFS 1500	Introduction to Criminal Justice	3
Social and Personal Awareness		6
PSYC 1560	General Psychology	3
<b>Major Requirements</b>		
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3710	Social Statistics	3
CJFS 3712	Criminal Justice Research	3
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3719	Criminal Law	3
CJFS 3735	Crime and Delinquency	3
<b>Criminal Justice Upper Division Electives, 37XX or higher- 15 s.h.</b> <sup>2</sup>		
Select 15 s.h. of upper-division 37XX or higher CJFS electives.		15
<b>Elective or (Optional) Minor-must have 24 s.h. total</b>		
Select 24 s.h. of Minor or additional electives.		24
<b>Corrections</b>		
CJFS 3702	Correctional Strategies	4
CJFS 3702L	Correctional Strategies Laboratory	2
CJFS 37XX or higher		3
CJFS 5802	Corrections Law and Liability	3
CJFS 4803	Correctional Case Management and Treatment <sup>1</sup>	3
<b>Total Semester Hours</b>		<b>120</b>

<sup>1</sup> Capstone course.

<sup>2</sup> Alternate option is to complete OPOTA.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
CJFS 1500	Introduction to Criminal Justice	3
SOC 1500	Introduction to Sociology	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CJFS 2602	Criminal Courts	3
CJFS 2601	Policing	3
PSYC 1560	General Psychology	3
Natural Science Elective with Lab		4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
CJFS 2603	Corrections	3
CJFS 3719	Criminal Law	3
CJFS 3700 or higher-Level Elective		3
Arts and Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3735	Crime and Delinquency	3
CJFS 3700 or higher-Level Elective		3
CJFS 3700 or higher-Level Elective		3
PHIL 2625	Introduction to Professional Ethics	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
CJFS 3702	Correctional Strategies	4
CJFS 3702L	Correctional Strategies Laboratory	2
CJFS 3710	Social Statistics	3
Social and Personal Awareness		3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CJFS 3712	Criminal Justice Research	3
CJFS 3700 or higher-Level Elective		3
Elective		3
Elective		3
Social and Personal Awareness		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
CJFS 5802	Corrections Law and Liability	3
Natural Science		3
CJFS 3700 or higher-Level Elective		3
CJFS 3700 or higher-Level Elective		3
Elective		3
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>			
CJFS 4803	Correctional Case Management and Treatment	3	
CJFS 3700 or higher-Level Elective		3	
CJFS 3700 or higher-Level Elective		3	
Elective		3	
Elective		3	
<b>Semester Hours</b>		<b>15</b>	
<b>Total Semester Hours</b>		<b>120</b>	

CJFS 3740	Criminal Justice Information Systems	3
CJFS 5825	Criminal Procedures and Constitutional Issues	3
CJFS 4870	Law Enforcement Administration	3
<b>Total Semester Hours</b>		<b>15</b>

A grade of C or better must be received in each required Criminal Justice and Forensic Sciences course in order to satisfy the departmental requirements for the degree.

COURSE	TITLE	S.H.
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**General Education Requirements**

Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
MATH 2623	Quantitative Reasoning	3
Natural Science (2 classes, 1 with lab)		7
PHIL 2625	Introduction to Professional Ethics	3
or PHIL 2627	Law and Criminal Justice Ethics	
Arts and Humanities		3
SOC 1500	Introduction to Sociology	3
CJFS 1500	Introduction to Criminal Justice	3
Social and Personal Awareness		6
PSYC 1560	General Psychology	3
Major Requirements		
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3710	Social Statistics	3
CJFS 3712	Criminal Justice Research	3
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3719	Criminal Law	3
CJFS 3735	Crime and Delinquency	3

**Criminal Justice Upper Division Electives, 37XX or higher-15 s.h.** <sup>2</sup>  
 Select 15 s.h. of upper-division 37XX or higher CJFS electives. 15

**Electives or (Optional) Minor-must have 24 s.h. total**  
 Select 24 s.h. of Minor or additional electives. 24

Law Enforcement		
CJFS 1510	Survey of Forensic Sciences	3
CJFS 3714 & 3714L	Forensic Science: Crime Scene Investigation and Forensic Science: Crime Scene Investigation Laboratory	3
CJFS 3740	Criminal Justice Information Systems	3
CJFS 5825	Criminal Procedures and Constitutional Issues	3
CJFS 4870	Law Enforcement Administration <sup>1</sup>	3
<b>Total Semester Hours</b>		<b>120</b>

<sup>1</sup> Capstone course.  
<sup>2</sup> Alternate option is to complete OPOTA.

## Learning Outcomes

1. Students can discriminate the influence of the CJ system at the subsystem levels (policing, courts, and corrections)
2. Students can apply CJ theories.
3. Students can analyze legal situations.
4. Students can assess public policy as it relates to the CJ system.

# Bachelor of Science in Applied Science in Criminal Justice, Law Enforcement Track

A Bachelor of Science in Applied Science (BSAS) degree in Criminal Justice requires a minimum of 120 semester hours. All Bachelor of Science in Applied Science students must complete a minimum of 45 semester hours of Criminal Justice courses of which 36 semester hours or more must be taken from upper-division courses. The courses are listed as CJFS courses. This degree can be earned in eight semesters if students average 15 hours per semester.

Transfer students must complete a minimum of 18 hours in Criminal Justice and Forensic Sciences courses at YSU. All majors must complete:

- core requirements:

COURSE	TITLE	S.H.
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3710	Social Statistics	3
CJFS 3712	Criminal Justice Research	3
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3719	Criminal Law	3
CJFS 3735	Crime and Delinquency	3
<b>Total Semester Hours</b>		<b>24</b>

- courses required in the student's chosen emphasis area
- 15 hours of CJFS electives not in the emphasis area (as designated on the department's curriculum sheet)

## Law Enforcement Track

The law enforcement track is designed for persons preparing for employment in municipal, state, and private agencies; federal law enforcement agencies; homeland security; administrative positions in municipal or state agencies; or as instructors in police education programs.

Courses required:

COURSE	TITLE	S.H.
CJFS 1510	Survey of Forensic Sciences	3
CJFS 3714 & 3714L	Forensic Science: Crime Scene Investigation and Forensic Science: Crime Scene Investigation Laboratory	3

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
CJFS 1500	Introduction to Criminal Justice	3



PSYC 1560	General Psychology	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CJFS 2602	Criminal Courts	3
CJFS 2601	Policing	3
PSYC 1560	General Psychology	3
Natural Science with Lab		4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
CJFS 2603	Corrections	3
CJFS 3719	Criminal Law	3
CJFS 3700 or higher-Level Elective		3
Arts and Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3735	Crime and Delinquency	3
CJFS 3700 or higher-Level Elective		3
CJFS 3700 or higher-Level Elective		3
PHIL 2625	Introduction to Professional Ethics	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
Natural Science		3
CJFS 3710	Social Statistics	3
CJFS 1510	Survey of Forensic Sciences	3
Social and Personal Awareness		3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CJFS 3714	Forensic Science: Crime Scene Investigation	2
CJFS 3714L	Forensic Science: Crime Scene Investigation Laboratory	1
CJFS 3740	Criminal Justice Information Systems	3
Social and Personal Awareness		3
Elective		3
CJFS 3712	Criminal Justice Research	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
CJFS 3700 or higher-Level Elective		3
CJFS 3700 or higher-Level Elective		3
Elective		3
Elective		3
Elective		3
OR		
CJFS 3777 (16 s.h.)		
OR		
CJFS 4807 (3-12 s.h.)		
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CJFS 4870	Law Enforcement Administration	3

3700 or higher-Level Elective		3
3700 or higher-Level Elective		3
Elective		3
CJFS 5825	Criminal Procedures and Constitutional Issues	3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

1. Students can discriminate the influence of the CJ system at the subsystem levels (policing, courts, and corrections)
2. Students can apply CJ theories.
3. Students can analyze legal situations.
4. Students can assess public policy as it relates to the CJ system.

## Bachelor of Science in Applied Science in Criminal Justice, Legal Process Track

A Bachelor of Science in Applied Science (BSAS) degree in Criminal Justice requires a minimum of 120 semester hours. All Bachelor of Science in Applied Science students must complete a minimum of 45 semester hours of Criminal Justice courses of which 36 semester hours or more must be taken from upper-division courses. The courses are listed as CJFS courses. This degree can be earned in eight semesters if students average 15 hours per semester.

Transfer students must complete a minimum of 18 hours in Criminal Justice and Forensic Sciences courses at YSU. All majors must complete:

- the core requirements:

COURSE	TITLE	S.H.
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3710	Social Statistics	3
CJFS 3712	Criminal Justice Research	3
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3719	Criminal Law	3
CJFS 3735	Crime and Delinquency	3
<b>Total Semester Hours</b>		<b>24</b>

- the courses required in the student's chosen emphasis area
- 18 hours of CJFS electives not in the emphasis area (as designated on the department's curriculum sheet)

## Legal Processes Track

The legal processes track is designed for students preparing for law school, court administration, paralegal work or legal research positions. Courses required:

COURSE	TITLE	S.H.
CJFS 3720	Legal Research	3
CJFS 3721	Evidence	3
CJFS 5825	Criminal Procedures and Constitutional Issues	3
CJFS 4890	Judicial Administration	3
<b>Total Semester Hours</b>		<b>12</b>

A grade of C or better must be received in each required Criminal Justice and Forensic Sciences course in order to satisfy the departmental requirements for the degree.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
MATH 2623	Quantitative Reasoning	3
Natural Science (2 classes, 1 with lab)		7
Mathematics Requirement		
Arts and Humanities		6
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
<b>Major Requirements</b>		
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3710	Social Statistics	3
CJFS 3712	Criminal Justice Research	3
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3719	Criminal Law	3
CJFS 3735	Crime and Delinquency	3
<b>Criminal Justice Upper Division Electives, 37XX or higher-15 s.h.</b> <sup>2</sup>		
Select 15 s.h. of upper-division 37XX or higher CJFS electives.		15
<b>Electives or (Optional) Minor-must have 24 s.h. total</b>		
Select 24 s.h. of Minor or additional electives.		24
<b>Legal Processes Track</b>		
CJFS 3720	Legal Research	3
CJFS 3721	Evidence	3
CJFS 37XX or higher		3
CJFS 5825	Criminal Procedures and Constitutional Issues	3
CJFS 4890	Judicial Administration <sup>1</sup>	3
<b>Total Semester Hours</b>		<b>120</b>

<sup>1</sup> Capstone course.

<sup>2</sup> Alternate option is to complete OPOTA.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
CJFS 1500	Introduction to Criminal Justice	3
SOC 1500	Introduction to Sociology	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CJFS 2602	Criminal Courts	3
CJFS 2601	Policing	3
PSYC 1560	General Psychology	3
Natural Science Elective with Lab		4
<b>Semester Hours</b>		<b>16</b>

<b>Year 2</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
CJFS 2603	Corrections	3
CJFS 3719	Criminal Law	3
CJFS 3700 or higher-Level Elective		3
Arts and Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3735	Crime and Delinquency	3
CJFS 3700 or higher-Level Elective		3
CJFS 3700 or higher-Level Elective		3
PHIL 2625	Introduction to Professional Ethics	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
CJFS 3720	Legal Research	3
CJFS 3710	Social Statistics	3
Social and Personal Awareness		3
Natural Science		3
Social and Personal Awareness		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CJFS 5825	Criminal Procedures and Constitutional Issues	3
CJFS 3712	Criminal Justice Research	3
CJFS 3721	Evidence	3
3700 or higher-Level Elective		3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
CJFS 4890	Judicial Administration	3
Elective		3
Elective		3
CJFS 3700 or higher-Level Elective		3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CJFS 3700 or higher-Level Elective		3
3700 or higher-Level Elective		3
3700 or higher-Level Elective		3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

1. Students can discriminate the influence of the CJ system at the subsystem levels (policing, courts, and corrections)
2. Students can apply CJ theories.
3. Students can analyze legal situations.
4. Students can assess public policy as it relates to the CJ system.

# Bachelor of Science in Applied Science in Criminal Justice, Loss Prevention/Assets Protection Track

A Bachelor of Science in Applied Science (BSAS) degree in Criminal Justice requires a minimum of 120 semester hours. All Bachelor of Science in Applied Science students must complete a minimum of 45 semester hours of Criminal Justice courses of which 36 semester hours or more must be taken from upper-division courses. The courses are listed as CJFS courses. This degree can be earned in eight semesters if students average 15 hours per semester.

Transfer students must complete a minimum of 18 hours in Criminal Justice and Forensic Sciences courses at YSU. All majors must complete:

- the core requirements:

COURSE	TITLE	S.H.
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3710	Social Statistics	3
CJFS 3712	Criminal Justice Research	3
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3719	Criminal Law	3
CJFS 3735	Crime and Delinquency	3
<b>Total Semester Hours</b>		<b>24</b>

- the courses required in the student's chosen emphasis area
- 15 hours of CJFS electives not in the emphasis area (as designated on the department's curriculum sheet).

## Loss Prevention/Assets Protection Track

The loss prevention/assets protection track is offered to students preparing for a career in private or homeland security or the protection of assets in corporate, retail, or industrial settings. Courses required:

COURSE	TITLE	S.H.
CJFS 1510	Survey of Forensic Sciences	3
CJFS 3700	Forensic Fire and Explosives Investigation	3
CJFS 3740	Criminal Justice Information Systems	3
CJFS 3751	Prevention Strategies	3
CJFS 4848	Loss Prevention and Assets Protection Administration	3
<b>Total Semester Hours</b>		<b>15</b>

A grade of C or better must be received in each required Criminal Justice and Forensic Sciences course in order to satisfy the departmental requirements for the degree.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
MATH 2623	Quantitative Reasoning	3
Natural Science (2 courses, 1 with lab)		7
PHIL 2625	Introduction to Professional Ethics	3
or PHIL 2627	Law and Criminal Justice Ethics	
Arts and Humanities		3

SOC 1500	Introduction to Sociology	3
CJFS 1500	Introduction to Criminal Justice	3
Social and Personal Awareness		6
PSYC 1560	General Psychology	3
<b>Major Requirements</b>		
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
CJFS 3710	Social Statistics	3
CJFS 3712	Criminal Justice Research	3
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3719	Criminal Law	3
CJFS 3735	Crime and Delinquency	3

<b>Criminal Justice Upper Division Electives, 37XX or higher-15 s.h. <sup>2</sup></b>		
Select 15 s.h. of upper-division 37XX or higher CJFS electives.	15	
<b>Electives or (Optional) Minor-must have 24 s.h. total</b>		
Select 24 s.h. of Minor or additional electives.	24	
<b>Loss Prevention/Asset Protection</b>		
CJFS 1510	Survey of Forensic Sciences	3
CJFS 3700	Forensic Fire and Explosives Investigation	3
CJFS 3740	Criminal Justice Information Systems	3
CJFS 3751	Prevention Strategies	3
CJFS 4848	Loss Prevention and Assets Protection Administration	3

**Total Semester Hours** 120

<sup>1</sup> Capstone course.

<sup>2</sup> Alternate option is to complete OPOTA.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
CJFS 1500	Introduction to Criminal Justice	3
SOC 1500	Introduction to Sociology	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CJFS 2602	Criminal Courts	3
CJFS 2601	Policing	3
Natural Science Elective with Lab		4
PSYC 1560	General Psychology	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
CJFS 2603	Corrections	3
CJFS 3719	Criminal Law	3
CJFS 3700 or higher-Level Elective		3
Arts and Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3735	Crime and Delinquency	3

CJFS 3700 or higher-Level Elective		3
CJFS 3700 or higher-Level Elective		3
PHIL 2625	Introduction to Professional Ethics	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
CJFS 3710	Social Statistics	3
CJFS 1510	Survey of Forensic Sciences	3
Natural Science		3
Social and Personal Awareness		3
CJFS 3700	Forensic Fire and Explosives Investigation	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CJFS 3712	Criminal Justice Research	3
CJFS 3740	Criminal Justice Information Systems	3
Social and Personal Awareness		3
CJFS 3700 or higher-Level Elective		3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
CJFS 3751	Prevention Strategies	3
CJFS 3700 or higher-Level Elective		3
3700 or higher-Level Elective		3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CJFS 4848	Loss Prevention and Assets Protection Administration	3
CJFS 3700 or higher-Level Elective		3
Elective		3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

1. Students can discriminate the influence of the CJ system at the subsystem levels (policing, courts, and corrections)
2. Students can apply CJ theories.
3. Students can analyze legal situations.
4. Students can assess public policy as it relates to the CJ system.

## Bachelor of Science in Applied Science in Forensic Science

A Bachelor of Science in Applied Science degree in Forensic Science requires a minimum of 121 semester hours. The program is designed to be rigorous and multi-disciplinary and allows for fewer electives in lower level courses but an increased flexibility in upper-division coursework.

A minor is intended to contrast with or deepen a major or General Education. Forensic Science is an interdisciplinary major. Courses that are required for, and count toward, the Forensic Science major cannot be counted toward a minor.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
<b>Core Competencies</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
Natural Science (2 courses, 1 with lab)		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
Arts and Humanities		
Social Sciences		
CJFS 1500	Introduction to Criminal Justice	3
ANTH 1500	Introduction to Anthropology	3
Social and Personal Awareness		
<b>Core Requirements (65 s.h.)</b>		
<b>Chemistry</b>		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
<b>Additional Biology</b>		
BIOL 3721	Genetics	3
<b>Physics</b>		
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
<b>Statistics</b>		
STAT 3717	Statistical Methods	4
<b>Criminal Justice and Forensic Sciences</b>		
CJFS 1510	Survey of Forensic Sciences	3
CJFS 2602	Criminal Courts	3
CJFS 3714 & 3714L	Forensic Science: Crime Scene Investigation and Forensic Science: Crime Scene Investigation Laboratory	3
CJFS 3716 & 3716L	Forensic Science Evidence Analysis and Forensic Science Evidence Analysis Laboratory	3
CJFS 3700	Forensic Fire and Explosives Investigation	3
CJFS 4850	Special Topics in Criminal Justice	3
CJFS 4807	Criminal Justice Internship	3-12
CJFS 5814	Practice and Ethics in Forensic Science	3
<b>Concentrations (Pick One)</b>		
<b>CHEMISTRY (Select at least 13 s.h.)</b>		
CHEM 3729	Inorganic Chemistry	3
CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4
CHEM 3740 & 3740L	Physical Chemistry 2 and Physical Chemistry 2 Laboratory	4

CHEM 3764	Chemical Toxicology	3	<b>Course</b>	<b>Title</b>	<b>S.H.</b>
CHEM 3785 & 3785L	Biochemistry 1 and Biochemistry Laboratory	4	<b>Year 1</b>		
CHEM 3786	Biochemistry 2	3	<b>Fall</b>		
CHEM 4891	Special Topics	1-3	ENGL 1550	Writing 1	3
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory	4	CJFS 1510	Survey of Forensic Sciences	3
CHEM 5821	Intermediate Organic Chemistry	3	CJFS 1500	Introduction to Criminal Justice	3
CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory	4	CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
<b>BIOLOGY (Select at least 13 s.h.)</b>			Arts and Humanities		3
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	4	<b>Semester Hours</b>		<b>16</b>
BIOL 3703 & 3703L	Clinical Immunology and Clinical Immunology Laboratory	4	<b>Spring</b>		
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	4	ENGL 1551	Writing 2	3
BIOL 3711	Cell Biology: Fine Structure	3	CJFS 2602	Criminal Courts	3
BIOL 3716	Molecular Microbiology 1: Nucleic Acids	4	ANTH 1500	Introduction to Anthropology	3
BIOL 3730 & 3730L	Human Physiology and Human Physiology Laboratory	5	CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
BIOL 4800 & 4800L	Bioinformatics and Bioinformatics Laboratory	4	Social and Personal Awareness		3
BIOL 4839	Selected Topics in Physiology	1	<b>Semester Hours</b>		<b>16</b>
CHEM 3785 & 3785L	Biochemistry 1 and Biochemistry Laboratory	4	<b>Year 2</b>		
CHEM 3786	Biochemistry 2	3	<b>Fall</b>		
BIOL 4850	Problems in Biology	1-3	CMST 1545	Communication Foundations	3
<b>OTHER OPTION, CHEMISTRY / BIOLOGY</b>			CJFS 3714	Forensic Science: Crime Scene Investigation	2
BIOL 4890 & 4890L	Molecular Genetics and Molecular Genetics Laboratory	4	CJFS 3714L	Forensic Science: Crime Scene Investigation Laboratory	1
BIOL 5827	Gene Manipulation	2	MATH 1571	Calculus 1	4
CJFS 4850	Special Topics in Criminal Justice	3-5	CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
CHEM 3719R	Organic Chemistry Recitation 1	1	<b>Semester Hours</b>		<b>14</b>
CHEM 3720R	Organic Chemistry Recitation 2	1	<b>Spring</b>		
PHLT 3731	Drug Use and Abuse	3	CJFS 3700	Forensic Fire and Explosives Investigation	3
PHLT 5810	Agents of Mass Casualty	3	CJFS 3716	Forensic Science Evidence Analysis	2
PHLT 5812	Crisis Management in Public Health	3	CJFS 3716L	Forensic Science Evidence Analysis Laboratory	1
<b>ANTHROPOLOGY (Select at least 16 s.h.)</b>			MATH 1572	Calculus 2	4
ANTH 2600	Human Osteology	4	CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
ANTH 3702	Archaeology	3	<b>Semester Hours</b>		<b>14</b>
ANTH 3703	Biological Anthropology	3	<b>Year 3</b>		
ANTH 3778	Archaeological Techniques	1-9	<b>Fall</b>		
ANTH 3779	Fieldwork in Historical and Industrial Sites Archaeology	3	BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
ANTH 3780	Forensic Anthropology 1	4	CJFS 4850	Special Topics in Criminal Justice	3
ANTH 4800	Undergraduate Research	1-2	STAT 3717	Statistical Methods	4
ANTH 4881	Forensic Anthropology 2	4	Elective 3700-Level		5
ANTH 4883	Case Studies in Forensic Anthropology	3	<b>Semester Hours</b>		<b>16</b>
ANTH 4891	Advanced Topics in Biological Anthropology	3	<b>Spring</b>		
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	4	BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
GEOG 5812	Global Positioning Systems and GIScience	3	CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
			Arts and Humanities		3
			Elective 3700-Level		4
			<b>Semester Hours</b>		<b>16</b>
			<b>Year 4</b>		
			<b>Fall</b>		
			CJFS 4807	Criminal Justice Internship	6

There may be other courses that qualify for upper division electives, but you must discuss these options with an academic advisor and get pre-approved.

PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics laboratory 1	1
Social and Personal Awareness		3
Elective 3700-Level		2

**Semester Hours** 16

#### Spring

CJFS 5814	Practice and Ethics in Forensic Science	3
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
BIOL 3721	Genetics	3
Elective 3700-Level		2

**Semester Hours** 13

**Total Semester Hours** 121

Request a Graduation Evaluation after you have completed 80-85 s.h. from the BCHHS Advising/Deans Office, 2104 Cushwa Hall, 330-941-3221.

## Learning Outcomes

1. Students can discriminate the influence of the CJ system at the subsystem levels (policing, courts, and corrections)
2. Students can analyze legal situations.
3. Students will explain biology principles.
4. Students will explain chemistry principles.
5. Students will explain how biology principles relate to forensic science.
6. Students will explain how chemistry principles relate to forensic science.

## Certificate in Basic Peace Officer Training

The certificate program in basic police officer training is considered appropriate for persons who are beginning a career in law enforcement. This certificate is considered a starting point in the new officer's education. The certificate serves as an incentive to continue toward an associate or baccalaureate degree. All of the courses needed for the certificate are applicable for advanced degrees. A placement test is required for all English courses.

COURSE	TITLE	S.H.
CJFS 1500	Introduction to Criminal Justice	3
CJFS 2601	Policing	3
CJFS 3777	Ohio Peace Officer Basic Training	16
ENGL 1550	Writing 1	3
Select one of the following:		3-4
SOC 1500	Introduction to Sociology	
PHIL 1560	Introduction to Philosophy	
AHLT 1502	Applied Pathophysiology	
CJFS 2602	Criminal Courts	

## Learning Outcomes

1. Students will identify the key aspects to the elements of law.

## Minor in Criminal Behavior

COURSE	TITLE	S.H.
CJFS 1500	Introduction to Criminal Justice	3
CJFS 3735	Crime and Delinquency	3
CJFS 3736	Criminal Victimization	3
CJFS 3752	Race, Ethnicity and Crime in America	3
CJFS 5831	Violence in America	3

Select one of the following: 3

CJFS 4851	Women and Justice	
CJFS 5875	Juvenile Justice System	
SOC 3744	Social Deviance	
PSYC 3702	Abnormal Psychology	

**Total Semester Hours** 18

## Minor in Criminal Justice - Corrections

COURSE	TITLE	S.H.
CJFS 1500	Introduction to Criminal Justice	3
CJFS 2603	Corrections	3
CJFS 3702 & 3702L	Correctional Strategies and Correctional Strategies Laboratory	6
CJFS 4803	Correctional Case Management and Treatment	3
CJFS 5802	Corrections Law and Liability	3

**Total Semester Hours** 18

## Minor in Criminal Justice Ethics

COURSE	TITLE	S.H.
CJFS 1500	Introduction to Criminal Justice	3
PHIL 2627	Law and Criminal Justice Ethics	3
PHIL 3708	Social and Political Philosophy	3
PHIL 3711	General Ethics	3
PHIL 3723	Philosophy of Law	3
Select one of the following:		3

PHIL 1561	Technology and Human Values	
PHIL 1565	Critical Thinking	
PHIL 2635	Ethics of War and Peace	
PHIL 4820	Seminar in Philosophy (relevant topic and instructor consent only)	
PHIL 4870	Internship in Ethical Practice (1 s.h., must repeat 3 times)	

**Total Semester Hours** 18

## Minor in Criminal Justice System

COURSE	TITLE	S.H.
CJFS 1500	Introduction to Criminal Justice	3
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 2603	Corrections	3
Select 6 s.h. of upper-division Criminal Justice courses.		6

**Total Semester Hours** 18

## Minor in Criminal/Legal Processes

COURSE	TITLE	S.H.
CJFS 1500	Introduction to Criminal Justice	3
CJFS 2602	Criminal Courts	3
CJFS 3719	Criminal Law	3
CJFS 3720	Legal Research	3
CJFS 3721	Evidence	3

CJFS 5825	Criminal Procedures and Constitutional Issues	3
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Forensic Science

COURSE	TITLE	S.H.
CJFS 1500	Introduction to Criminal Justice	3
CJFS 1510	Survey of Forensic Sciences	3
CJFS 2601	Policing	3
CJFS 2602	Criminal Courts	3
CJFS 3714 & 3714L	Forensic Science: Crime Scene Investigation and Forensic Science: Crime Scene Investigation Laboratory	3
CJFS 3716	Forensic Science Evidence Analysis	2
CJFS 3716L	Forensic Science Evidence Analysis Laboratory	1
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Juvenile Justice System

COURSE	TITLE	S.H.
CJFS 1500	Introduction to Criminal Justice	3
CJFS 2603	Corrections	3
CJFS 3702 & 3702L	Correctional Strategies and Correctional Strategies Laboratory	6
CJFS 3735/SOC 2630/3735	Crime and Delinquency <sup>1</sup>	3
CJFS 3736	Criminal Victimization	3
CJFS 5875	Juvenile Justice System	3
<b>Total Semester Hours</b>		<b>21</b>

<sup>1</sup> SOC 2630 Criminology or SOC 3735 Juvenile Delinquency may be substituted for CJFS 3735 Crime and Delinquency.

## Minor in Law Enforcement

COURSE	TITLE	S.H.
CJFS 1500	Introduction to Criminal Justice	3
CJFS 1510	Survey of Forensic Sciences	3
CJFS 2601	Policing	3
CJFS 3714 & 3714L	Forensic Science: Crime Scene Investigation and Forensic Science: Crime Scene Investigation Laboratory	3
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3765	Human Relations	3
CJFS 5825	Criminal Procedures and Constitutional Issues	3
<b>Total Semester Hours</b>		<b>21</b>

## Minor in Loss Prevention and Assets Protection

COURSE	TITLE	S.H.
CJFS 1500	Introduction to Criminal Justice	3
CJFS 1510	Survey of Forensic Sciences	3
CJFS 2601	Policing	3
CJFS 3700	Forensic Fire and Explosives Investigation	3
CJFS 3715	Criminal Justice Management Concepts	3
CJFS 3740	Criminal Justice Information Systems	3
CJFS 3751	Prevention Strategies	3

CJFS 4848	Loss Prevention and Assets Protection Administration	3
<b>Total Semester Hours</b>		<b>24</b>

## Department of Health Professions

(330) 941-3327

The department offers certificate, associate, baccalaureate, and master's degree programs for future members of the health care delivery and public health professions. Certificate programs are offered in paramedic and polysomnography.

Associate degree programs are offered in:

- emergency medical services
- medical assisting technology
- medical laboratory technology

Baccalaureate programs are offered in:

- allied health
- public health
- medical laboratory science (medical technology)
- dental hygiene
- respiratory care

A master's degree programs are offered in:

- health and human services (health promotion, administration for health and human services, and health informatics tracks)
- public health
- respiratory care

The master's degree program in respiratory care is available for licensed respiratory therapists. For more information regarding the Master of Respiratory Care, Master of Health and Human Services, or the Master of Public Health, refer to the Graduate Catalog.

The allied health, public health, associate to bachelors in respiratory care completion program, master of health and human services, and master of respiratory care programs can be completed in a web-based distance education delivery format. Details on program requirements appear under the specific program heading.

Admission to all programs except medical assisting technology and public health is on a restricted basis, since only a limited number of students can be accommodated. Detailed information on admission criteria and closing dates for application is available in the Department of Health Professions, the Bitonte College of Health and Human Services Dean's Office, or the Admissions Office.

## Allied Health Program

The department offers a baccalaureate program leading to the degree Bachelor of Science in Applied Science (BSAS) with a major in allied health. This program is intended to serve paramedical professional health associate degree graduates who wish to upgrade their academic credentials to include the baccalaureate degree. Major courses in this program are available online, allowing students to complete coursework at a time and location convenient to them.

## Online Undergraduate Degree Programs

- Bachelor of Science in Applied Science, Allied Health
- Bachelor of Science in Applied Science, Public Health

For additional information, please visit the Office of Distance Education. (<http://cms.yosu.edu/administrative-offices/distance-education/distance-education>)

You can contact the Office of Distance Education by e-mail at [distanceed@ysu.edu](mailto:distanceed@ysu.edu) or by phone at (330) 941-1516.

For more information, visit the **Department of Health Professions** (p. 382).

#### Chair

**Joseph J. Mistovich**, M.Ed., Professor, Chair

#### Professor

**Ronald K. Chordas**, Ph.D., Assistant Professor

**Kelly Colwell**, Ed.D., Assistant Professor

**Ida Fusillo**, M.P.H., Assistant Professor

**Debbie Juruaz**, D.D.S., Professor

**Diane P. Kandray**, Ed.D., Professor

**Susan E. Kearns**, M.S.N., Assistant Professor

**Joseph P. Lyons**, Sc.D., Associate Professor

**Joan O'Connell-Spalla**, M.S., Assistant Professor

**Ruth Palich**, M.H.H.S., Assistant Professor

**Nicolette Powe**, Dr.P.H., Assistant Professor

**Keisha T. Robinson**, Dr.P.H., Associate Professor

**Amanda Roby**, M.H.H.S., Assistant Professor

**Salvatore Sanders**, Ph.D., Professor

**Suzanne Smith**, M.Ed., Assistant Professor

**Silvia Stefan**, Ed.D., Assistant Professor

**Mary Yacovone**, M.Ed., Associate Professor

## Majors

- Allied Health Baccalaureate - Completion Program (p. 397)
- Medical Laboratory Technician (MLT-AAS) (p. 395)
- Medical Laboratory Science (MLS-BSAS) (p. 397)
- Public Health, Health Education/Health Promotion Track (p. 402)
- Public Health, Environmental Health Track (p. 400)
- Dental Hygiene (p. 404)
- Emergency Medical Services (p. 392)
- Medical Assisting Technology (p. 393)
- BS in Respiratory Care (p. 407)

## Certificate

- Health Information Systems (p. 409)

## Minors

- Minor in Community Health Planning and Evaluation (p. 409)
- Minor in Public Health (p. 409)
- Minor in Environmental Health and Safety (p. 409)

## Allied Health

### AHLT 1500 Introduction to Online Learning in Health Professions 3 s.h.

Prepare students to take online courses including the use of the Blackboard learning environment and orient students to YSU and YSU's Health Professions programs. Help students acquire basic skills to be successful in online learning and emphasize skills and resources necessary to be successful in their personal, academic and career-related pursuits. In addition, this course will introduce students to topics such as career assessment and how to become a successful health professional in the 21st Century. Should be taken during a student's first 30 hours at YSU. Listed also as PHLT 1500 and RESC 1500.

**Prereq.:** PHLT, AHLT or RESC major.

### AHLT 1502 Applied Pathophysiology 4 s.h.

Introduction to clinical anatomy, physiology, and pathophysiology with application to acute and chronic illness.

### AHLT 3704 Quantitative Methods in Health Sciences 3 s.h.

This course is designed to provide the Health Care Professional with the ability to read and critically evaluate published research results and reports. Also, to become an educated consumer of medical/dental research and apply evidence based decision making. Critique research results to make judgments regarding the relevance, creditably and usefulness to clinical decision making. Allows for application of research results in the clinical setting.

**Prereq.:** MATH 2623 or consent of the instructor.

### AHLT 3705 Pharmacotherapeutics 3 s.h.

Advanced concepts and integration of various drug interactions as applied to modern drug therapy. Analysis of drug regimens related to a broad spectrum of pathologic conditions.

**Prereq.:** BIOL 1545 or BIOL 1551 and BIOL 1552, MATC 2605, or permission of instructor.

### AHLT 3706 Practice Management for Dental Hygiene 3 s.h.

Management of dental hygiene care including appointment control, developing and maintaining recall systems, and insurance management. Dental marketing problem solving and the business relationship between dental patients and dental hygiene professionals.

**Prereq.:** DHYG 2628.

### AHLT 3707 Clinical Informatics for the Healthcare Provider 3 s.h.

Application of health informatics by the practicing clinician in the clinical setting. Foundational and Structural Interoperability is provided to address the changing health care needs within the United States.

**Prereq.:** AHLT 3711 or consent of the instructor.

### AHLT 3708 Preventive Public Health Care 3 s.h.

Application of current health care philosophies in disease prevention. In-depth case study of a specific public health problem and its prevention.

**Prereq.:** BIOL 1545 or BIOL 1551 and BIOL 1552, or permission of instructor.

### AHLT 3709 Elements of Urban Environmental Health Practices 3 s.h.

Focus on development and implementation issues of environmental and public health programs necessary for urban and rural communities to meet acceptable public health standards at the local health department level with emphasis on resources and staffing. AHLT 3708, or permission of instructor. Also listed as PHLT 3709.

### AHLT 3710 Gerodontology 3 s.h.

In-depth study of geriatrics as it relates to dental hygiene care and specific concerns of the elderly. An extramural experience with a geriatric patient.

**Prereq.:** DHYG 1513.

### AHLT 3711 Health Care Information Systems 3 s.h.

The course is comprehensive analysis of the concepts and applications of medical informatics. Relevant technologies and "real world" skills are presented in the field of Medical Informatics using data and medical software.

**Prereq.:** AHLT 3704 or consent of instructor.



**AHLT 3717 Health Care Policy 3 s.h.**

A comprehensive overview of the American healthcare system. Particular attention given to the design and implementation of the Affordable Care Act.  
**Prereq.:** BIOL 1545 or EMS 1501 or MATC 2600 or MLT 1501 or AHLT major or POL 1560 or permission of instructor.

**AHLT 3720 EMS Management 3 s.h.**

A review of EMS system design, staffing, chain of command, medical education, policies and procedures, record keeping, inter-agency relationships, community resources and involvement, and legal aspects relevant to private and public emergency medical services.  
**Prereq.:** EMS 2614.

**AHLT 3721 Pediatric Emergency Care 3 s.h.**

A study of the pathophysiology, symptomatology, advanced diagnostic and therapeutic techniques of medical and traumatic emergencies unique to the pediatric patient.  
**Prereq.:** EMS 2640.

**AHLT 3740 Pathology of Infectious Diseases 3 s.h.**

Pathology, prevention, transmission, and treatment of infectious disease; emphasis on nosocomial, opportunistic, and emerging bacterial, fungal, parasitic, and viral organisms.  
**Prereq.:** BIOL 1545 or BIOL 1551 and BIOL 1552, or permission of instructor.

**AHLT 3745 Impact of Medical Records on Healthcare Reimbursement 3 s.h.**

This course is designed to provide the Health Care Professional with knowledge of private, group and government insurance submissions, as well as the diagnostic and procedural coding system to manage electronic medical records. A review of ethical and legal requirements will be examined in relation to laws and regulations as they apply to insurance submission and electronic health records as well.  
**Prereq.:** MATC 2602, MATC 2612 or MATC 2600 or approval from instructor.

**AHLT 3755 Principles of Occupational Health and Safety 3 s.h.**

Contemporary concepts of occupational health and safety as they apply to health-related environments. Includes development of elements needed to implement comprehensive health and safety plans.  
**Prereq.:** AHLT 3708.

**AHLT 4801 Special Topics 1-3 s.h.**

The directed study and research of a special problem or issue related to the health field. The topic of interest allows the student to participate in the investigation of aspects of administration, education, business, or research as these pertain to the particular health specialty. May be repeated for a total of 6 s.h.  
**Prereq.:** AHLT 5840 or permission of instructor.

**AHLT 4804 Stress and the Health Care Professional 3 s.h.**

Personal reactions of those involved in health education or the delivery of health care to patients, families, and their health environment. Indicators of stress and coping strategies, organizational systems, communication theory, conflict resolution, problem solving, and burnout.  
**Prereq.:** AHLT 5840 or permission of instructor.

**AHLT 4805 Health Education for Allied Health 3 s.h.**

University as well as hospital-based programs reviewed in regard to accreditation, clinical vs didactic instruction, use of simulations, and evaluation techniques. Public health education and the role of the Allied Health professional. A major learning unit and/or research project required.  
**Prereq.:** AHLT 5840 or PHLT 3701 or permission of instructor.

**AHLT 4806 Research Methods 3 s.h.**

Measurement and interpretation of health data and their application in the research process. Research design considerations, data collection methods, and data analysis of health care research projects.  
**Prereq.:** AHLT 3704.

**AHLT 4808 Environmental Health Concerns 3 s.h.**

Industrial hygiene, hazardous and infectious waste, air and quality, and sanitation policies in health care facilities. Pertinent federal, state, and local legislation.  
**Prereq.:** AHLT 3708 or permission of instructor.

**AHLT 4810 Management Skills for Health Professionals 3 s.h.**

A study of the conceptual framework of supervision in Health Care Organizations with emphasis on managerial skills, formulation of policies, principles of budgeting, performance appraisals, and community relations.  
**Prereq.:** AHLT 5840, AHLT 4805, or permission of instructor.

**AHLT 4812 Advanced Cardiac Life Support 3 s.h.**

ECG interpretation, cardiovascular drug pharmacology, airway management and resuscitation techniques used in the management of cardiac emergencies. The course exceeds the objectives of the American Heart Association's Advanced Cardiac Life Support program for initial certification or recertification. Two hours lecture, three hours laboratory.  
**Prereq.:** AHLT 3705 or permission of instructor.

**AHLT 4813 Adult Cardiac and Pediatric Advanced Life Support 3 s.h.**

Twelve-lead ECG interpretation, cardiovascular pharmacology, advanced airway management, vascular access, and resuscitation techniques used in the management of adult cardiac and pediatric emergencies. Successful completion of the course will result in AHA ACLS and PALS certification. Two hours of lecture and three hours of lab.  
**Prereq.:** AHLT 3705 or permission of instructor.

**AHLT 4820 Directed Research 3 s.h.**

Individual study of an issue related to the health care field. Students must present research at a faculty and student forum.  
**Prereq.:** Senior standing and AHLT 4806 or a research methods course approved by the course instructor.  
**Gen Ed:** Capstone.

**AHLT 4825 Patient Advocacy for the Health Professional 3 s.h.**

This course is designed for the health care professional and focuses on basic concepts of patient advocacy in healthcare facilities. Examines the problems in healthcare quality and how advocacy by professionals can ensure that best practices are adopted. An emphasis on conceptual frameworks, debates, and ethical issues within the field are utilized. Patient centered care, patient safety systems, patient involvement and leadership design, delivery and access will be addressed.  
**Prereq.:** Junior Status, AHLT 3708, or consent of the instructor.

**AHLT 4831 Industrial Hygiene 3 s.h.**

Basic concepts of industrial hygiene including anticipation, recognition, and evaluation of environmental and safety hazards as they pertain to the workplace.  
**Prereq.:** AHLT 3708, AHLT 4808, or permission of instructor.

**AHLT 4831L Industrial Hygiene Laboratory 1 s.h.**

Application of basic concepts of industrial hygiene including anticipation, recognition, and evaluation of environmental and safety hazards as they pertain to the workplace.

**AHLT 4835 Health Care Diversity 1 s.h.**

Strategies of communication that enable the student to understand socioeconomic, political, ethnic, and religious diversity in health care.  
**Prereq.:** AHLT 5840 or permission of instructor.

**AHLT 5807 Epidemiology 3 s.h.**

A study of the interrelationships of the host, agent, and environment in determining the causation, frequency, and distribution of disease.  
**Prereq.:** AHLT 3708, AHLT 5840, AHLT 4806, or permission of instructor.

**AHLT 5816 Environmental Regulations 3 s.h.**

Structure and function of federal, state, and local agencies responsible for implementing environmental legislation. Emphasis on the duties and authority of different health and environmental agencies and specific legislation dealing with environmental impacts.  
**Prereq.:** AHLT 3708, AHLT 5807 or permission of instructor.

**AHLT 5840 Comparative Health Systems 3 s.h.**

Problems and issues facing global health care systems including access to care, financing and rationing of services. A major project is included.  
**Prereq.:** AHLT 3708 or permission of instructor.

## Dental Hygiene

### **DHYG 1514L Clinical Dental Hygiene Remediation 1 s.h.**

This course is designed to improve the dental hygiene student's clinical skills, and to develop the basic competencies essential for performing invasive dental hygiene procedures. The student's individual clinic deficiencies will be addressed, along with patient management and time utilization. This course may be repeated one time. Four hours of clinic per week for twelve weeks.

**Prereq.:** Unsatisfactory progress in clinical dental hygiene and/or recommendation of the clinic coordinator.

### **DHYG 2601 Dental Hygiene 1 3 s.h.**

An introduction to providing dental hygiene care. Theories and principles of patient assessment, prevention of disease transmission, instrumentation, instrument sharpening, and coronal polishing. Application of risk assessment as it relates to the treatment plan through case studies.

**Prereq.:** Admission to the Dental Hygiene Program.

### **DHYG 2601L Clinical Dental Hygiene 1 2 s.h.**

Preclinical dental hygiene instruction in a simulation laboratory. Introduction of basic dental hygiene procedures and equipment operation. Six hours of lab per week.

**Prereq.:** Admission to the Dental Hygiene Program.

### **DHYG 2602 Dental Hygiene 2 2 s.h.**

Discussion of appropriate preventive dental agents and devices to improve various dental conditions and implementation techniques. Development of individualized patient education instruction and a tobacco cessation program as part of the dental hygiene care plan.

**Prereq.:** DHYG 2601.

### **DHYG 2602L Clinical Dental Hygiene 2 2 s.h.**

Continuation of pre-clinical dental hygiene instruction in the clinical setting. Includes comprehensive patient care planning and implementation techniques. Eight hours of lab per week.

**Prereq.:** DHYG 2601L.

### **DHYG 2620 Head and Neck Anatomy 2 s.h.**

A study of the anatomy of the head and neck, oral structures and tooth morphology.

**Prereq.:** Admission to the Dental Hygiene program.

### **DHYG 2620L Head and Neck Anatomy Lab 1 s.h.**

Applied study of the anatomy of the head and neck, oral structures and tooth morphology. Three hours of lab per week.

**Prereq.:** Admission to the Dental Hygiene program.

### **DHYG 2630 Management of Medical/Dental Emergencies 2 s.h.**

Instruction in the prevention, recognition, and management of medical emergencies in the dental office. Emphasis on case studies to develop critical thinking and decision-making skills in patient management.

**Prereq.:** Admission to the Dental Hygiene Program.

### **DHYG 2640 Oral Histology 2 s.h.**

A study of the tissues of the human body and embryological development.

**Prereq.:** DHYG 2620.

### **DHYG 3703 Dental Hygiene 3 3 s.h.**

Advanced dental hygiene instrumentation and techniques. Patient cases, problem identification, and strategies. Fundamentals of sonic and ultrasonic instrumentation.

**Prereq.:** DHYG 2602.

### **DHYG 3703L Clinical Dental Hygiene 3 3 s.h.**

Clinic application of dental hygiene techniques on student partners and clinic patients. Emphasis on applied preventive measures and patient education. Nine hours of clinic per week.

**Prereq.:** DHYG 2602L.

### **DHYG 3704 Dental Hygiene 4 3 s.h.**

Concepts of nutrition science as they relate to the evaluation and education of dental hygiene patients with emphasis on caries risk assessment.

**Prereq.:** DHYG 3703.

### **DHYG 3704L Clinical Dental Hygiene 4 3 s.h.**

Clinical application of dental hygiene techniques. Emphasis on the interpretation of patient assessment and evidence based research to evaluate patients' oral health and to develop effective treatment plans. Nine hours of clinic per week.

**Prereq.:** DHYG 3703L.

### **DHYG 3750 Oral Pathology 2 s.h.**

The cause and nature of disease, together with anatomical, histological and functional changes. Observation and evaluation of the patients' systemic and oral health status as it relates to treatment planning. Special emphasis is given to oral pathology and case studies.

**Prereq.:** DHYG 2640.

### **DHYG 3760 Dental Radiology 3 s.h.**

History and development of radiographs, radiographic theory and techniques, hazardous effects of radiation, and methods of protection. Emphasis on interpretation of normal anatomic structures and pathologic entities; and the use of diagnosis in prevention of dental and related diseases.

**Prereq.:** DHYG 2602L.

### **DHYG 3760L Dental Radiology Lab 1 s.h.**

The techniques necessary to expose, develop, and mount dental films with emphasis in radiographic interpretation. Three hours of lab per week.

**Prereq.:** DHYG 2602L.

### **DHYG 3770 Periodontology 3 s.h.**

The study of prevention, diagnosis, and treatment of diseases affecting the gingival and supporting structures of the teeth, as well as implant placement and maintenance. Emphasis is on acquisition of knowledge of the histopathology of disease and the biologic basis for periodontal therapy.

**Prereq.:** DHYG 2640.

### **DHYG 3780 Pharmacology 2 s.h.**

Importance of pharmacological aspects of those drugs and drug groups with which the dentist and dental hygienist are directly and indirectly concerned. Application of pharmacology in treatment planning.

**Prereq.:** DHYG 2630.

### **DHYG 3790 Local Anesthesia and Pain Control for Dental Hygienists 2 s.h.**

Instruction in the anatomy, physiology, pharmacology, and administration of local anesthesia and other pain control methods.

**Prereq.:** DHYG 3703L or permission of the Program Director.

### **DHYG 3790L Local Anesthesia and Pain Control Clinic 1 s.h.**

Application of the techniques of local anesthetic administration and pain control on anatomical models and clinical partners. Three hours of clinic per week.

**Prereq.:** DHYG 3703L or permission of the Program Director.

### **DHYG 4805 Dental Hygiene 5 3 s.h.**

The role of the dental hygienist in providing care for special needs patients by recognizing the necessary treatment plan modifications due to physical, mental, medical, and social factors.

**Prereq.:** DHYG 3704.

### **DHYG 4805L Clinical Dental Hygiene 5 4 s.h.**

Advanced clinical application of dental hygiene techniques with emphasis on patient management and radiographic assessment resulting in an individualized and comprehensive treatment plan for periodontal patients. Twelve hours of clinic per week.

**Prereq.:** DHYG 3704L.

### **DHYG 4806 Dental Hygiene 6 2 s.h.**

A study of dental specialties enhancing students' knowledge, and understanding. Indications for referral, specialized instruments, diagnostic tests, and specific oral hygiene instructions will be discussed.

**Prereq.:** DHYG 4805.

### **DHYG 4806L Clinical Dental Hygiene 6 4 s.h.**

Continued application of dental hygiene techniques with emphasis on professionalism and competency in private practice. Twelve hours of clinic per week.

**Prereq.:** DHYG 4805L.

**DHYG 4830 Dental Materials 1 s.h.**

The sources, physical properties, methods of manufacturing, and uses of various dental materials. Emphasis on the newest products, and interpretation of research supporting product effectiveness.

**Prereq.:** DHYG 3704L.

**DHYG 4830L Dental Materials Lab 1 s.h.**

Clinical application of selected dental materials and four-handed dentistry enhancing the students' understanding of dental procedures. Technical procedures and delegated responsibilities will be completed on manikins, and student partners.

**Prereq.:** DHYG 3704L.

**DHYG 4840 Directed Dental Hygiene Research 3 s.h.**

Development of research skills including problem identification, development of a hypothesis, research design, data collection, analysis, and interpretation. Approved dental hygiene topics will be completed as a group under faculty supervision.

**Prereq.:** AHLT 4806.

**Gen Ed:** Capstone.

**DHYG 4845 Expanded Functions for the Dental Hygienist 3 s.h.**

Review of tooth morphology, properties and manipulation of dental restorative material, and techniques and procedures for restoring teeth with amalgam and tooth colored direct restorations. Concepts of four-handed dentistry and knowledge to perform as an Expanded Functions Dental Auxiliary (EFDA).

**Prereq.:** DHYG 2620, DHYG 2620L and junior standing or consent of instructor.

**DHYG 4845L Expanded Functions for the Dental Hygienist Lab 1 s.h.**

Laboratory application of restorative techniques utilizing the principles and skills of restorative four-handed dentistry. Preparation of the dental hygiene student to perform the duties of an expanded function dental auxiliary.

**Prereq.:** DHYG 2620, DHYG 2620L and junior standing or consent of instructor.

**Coreq.:** DHYG 4845.

**DHYG 4850 Dental Public Health 3 s.h.**

An introduction to public health dentistry, a study of the epidemiology of dental disease, writing grant proposals, and implementation of health promotion theories. Preventing and controlling dental disease through organized community efforts is addressed.

**Prereq.:** DHYG 4805.

**DHYG 4850L Community Clinicals 1 s.h.**

Oral health care services provided by senior dental hygiene students at community sites. Culturally competent care to underserved populations is the primary course emphasis. Forty-five hours of community clinical experience throughout the semester.

**Prereq.:** DHYG 4805L.

**DHYG 4855L Expanded Functions Clinical 2 s.h.**

Clinical implementation of expanded functions dental auxiliary skills gained in DHYG 4845L. Planned, evaluated and supervised clinical experience.

**Prereq.:** DHYG 2620, DHYG 2620L, and DHYG 4845L or consent of instructor.

**DHYG 4860 Ethics and Practice Concepts 2 s.h.**

The historical, professional, legal, and ethical aspects of dental hygiene. Study of practice management topics relevant to the changing roles of hygienists with emphasis on quality care in a patient centered practice.

**Prereq.:** DHYG 4805.

## Emergency Medical Services

**EMS 1500 Emergency Medical Technician 4 s.h.**

Provides the basic knowledge and skills to be an Emergency Medical Technician. Meets all National Highway and Safety administration National Emergency Medical Services Education Standards and the State of Ohio Approved Emergency Medical Services Curriculum Standards for the Emergency Medical Technician. Must be taken concurrently with EMS 1500L and EMS 1500C.

**EMS 1500C Emergency Medical Technician Clinical and Field Internship 1 s.h.**

Clinical and Field Internship experience necessary to acquire the skills required to be an Emergency Medical Technician. Meets all national and state curriculum standards for the EMT. Must be taken concurrently with EMS 1500 and EMS 1500L. Ten hours per week after week 12.

**EMS 1500L Emergency Medical Technician Laboratory 2 s.h.**

Laboratory experience necessary to acquire skills required to be an Emergency Medical Technician. Meets all National and State curriculum standards for the EMT. Six hour lab. Must be taken concurrently with EMS 1500 and EMS 1500C.

**EMS 1501 Introduction to Prehospital Medicine 1 s.h.**

Introduction to the roles, responsibilities, EMS systems, and medical and legal considerations of the EMS profession.

**Prereq.:** Admission to the EMS program.

**EMS 1502 General Pathophysiology for the Paramedic 3 s.h.**

Study of general lifespan development of the body, how pathophysiologic changes affect it. Provides a foundational basis for viewing the body as a system, understanding its functions, anticipated reaction to injury, illness and intervention.

**Prereq.:** Admission to EMS program or permission of instructor.

**EMS 1503 Patient Assessment and Airway Management 3 s.h.**

Intensive course designed to prepare the student in the methodology of advanced patient assessment, and the relevance of clinical signs and symptoms identified. Airway anatomy, equipment, procedures as they pertain to advanced airway management.

**Prereq.:** Admission to EMS program or permission of instructor.

**EMS 1504 Principles of Trauma 3 s.h.**

Study of traumatic emergencies normally encountered prehospitally with emphasis on pathophysiology, etiology, symptomatology, and management.

**Prereq.:** Admission to EMS program or permission of Program Director.

**EMS 1505 Emergency Medical Techniques 1 Lab 1 s.h.**

Includes simulated emergency traumatic situations and actual patient contact emphasizing physical assessment, patient interviewing, and management techniques. Meets 3 hours per week. Must be taken concurrently with EMS 1501, EMS 1502, EMS 1503, and EMS 1504.

**Prereq.:** Admission to the EMS program or special permission of program director.

**EMS 1506 Emergency Medical Services Clinical 1 1 s.h.**

Clinical experiences in the emergency department and in the operating room allowing the student to work on various skills necessary for the paramedic. Total of 90 clinical hours. Must be taken concurrently with EMS 1503 and EMS 1505.

**Prereq.:** Admission to EMS program or permission of instructor.

**EMS 1507 Cardiovascular Emergencies 3 s.h.**

Intense study of the etiology, pathophysiology, symptomatology, and management principles for cardiovascular emergencies. Includes electrophysiological principles of EKG interpretation. Must be taken concurrently with EMS 1508.

**Prereq.:** Admission to EMS program or permission of instructor.

**EMS 1508 Cardiovascular Techniques Lab 1 s.h.**

Performance of fundamental techniques employed in the management of cardiovascular emergencies. Three hours lab per week. Must be taken concurrently with EMS 1507.

**Prereq.:** EMS 1502, EMS 1503, and EMS 1504.

**EMS 1512 Medical Conditions and Management Techniques 3 s.h.**

Study of pathophysiology, symptomatology, etiology, and management techniques of commonly encountered medical emergencies. Must be taken concurrently with EMS 1513.

**Prereq.:** EMS 1502, EMS 1503, EMS 1504.

**EMS 1513 Emergency Medical Techniques 2 Lab 1 s.h.**

Simulated situations and actual patient contact emphasizing performance of emergency medical techniques utilized to manage common medical emergencies. Must be taken concurrently with EMS 1512.

**Prereq.:** EMS 1505.

**EMS 1514 Emergency Medical Services Operations 1 s.h.**

Introduction to common rescue tools and techniques utilized in basic victim disentanglement and extrication.

**Prereq.:** Admission to EMS program or permission of instructor.

**EMS 1515 Clinical Experience 2 1 s.h.**

Hospital clinical experience to include rotations through the following: Adult emergency department, critical and intensive care units. Total of 95 hours. Must be taken concurrently with EMS 1508 and EMS 1513.

**Prereq.:** EMS 1506.

**EMS 1516 Prehospital Field Experience 1 1 s.h.**

Field experience with an approved advanced life support unit under the direct supervision of a selected paramedic field preceptor. Total of 200 hours. To be taken concurrently with EMS 1507 and EMS 1512.

**Prereq.:** EMS 1504.

**EMS 2600 Emergency Medical Services Special Populations 3 s.h.**

Study of etiology, pathophysiology, symptomatology and management of special needs patients. Includes gynecology, obstetrics, neonatology, pediatrics, geriatrics, behavioral, abuse/assault, infectious and communicable diseases, and chronic care. Must be taken concurrently with EMS 2601.

**Prereq.:** EMS 1507 and EMS 1512 or permission of instructor.

**EMS 2601 Emergency Medical Techniques 3 Lab 1 s.h.**

Techniques necessary to effectively manage conditions in EMS 2600. Three hour lab. Must be taken concurrently with EMS 2600 and EMS 2605.

**Prereq.:** Admission to the EMS program or permission by program director.

**EMS 2603 Clinical Experience 3 2 s.h.**

Precepted hospital clinical in the adult and pediatric emergency department; obstetrics, labor and delivery; and, psychiatry department. Total of 120 hours of clinical experience. Must be taken concurrently with EMS 2600.

**Prereq.:** EMS 1515.

**EMS 2604 Prehospital Field Experience 2 1 s.h.**

Performance of advanced life support procedures under the direct supervision of a selected paramedic field preceptor. Total of 150 hours.

**Prereq.:** EMS 1516.

**EMS 2605 Pulmonary Emergencies 3 s.h.**

Intense study of the etiology, pathophysiology, symptomatology, and management principles of pulmonary emergencies. Must be taken concurrently with EMS 2601.

**Prereq.:** EMS 1507 and EMS 1512.

**EMS 2606 EMS Special Certifications 1 s.h.**

Provides the Paramedic with certifications beneficial to prehospital care. These certifications are nationally recognized and commonly sought after by paramedics, and desired by employers. Include PALS, PHTLS, NRP, and EMPACT. To be taken concurrently with EMS 2607.

**Prereq.:** Admission to EMS program or special permission of instructor.

**EMS 2607 EMS Special Certifications Lab 1 s.h.**

Focus on skills and competencies required for PALS, PHTLS, NRP. To be taken concurrently with EMS 2606.

**Prereq.:** Admission to the EMS program or special permission by the program director.

**EMS 2609 EMS Prehospital Field Internship 3 s.h.**

Capstone Field Internship experience requiring the paramedic student to perform successfully as a team leader on an advanced life support unit in the prehospital setting. A minimum of 30 team leads is required with an assigned field preceptor. Approximately 22 hours of field internship per week.

**Prereq.:** EMS 2604.

**EMS 2613 Critical Care Paramedic 3 s.h.**

In-depth study of the underlying abnormalities and physiologic disturbances resulting from traumatic injuries and medical illnesses as it relates to emergency medical care. Includes analysis of case studies. Must be taken concurrently with EMS 2614.

**Prereq.:** EMS 2609, or permission of instructor.

**EMS 2614 Critical Care Paramedic Laboratory 1 s.h.**

Designed to prepare the student as a competent care provider in the transport of critical patients by ground or air unit. Topics include 12-leads, IABPs, RSI, lab data, EtCO<sub>2</sub> monitoring, and advance pharmacology. Must be taken concurrently with EMS 2613.

**Prereq.:** NREMT and permission of instructor.

**EMS 2631 Advanced Clinical and Field Internship Experience 2 s.h.**

Field internship in a variety of advanced life-support units to expose the student to hospital-based, public third service, private, and fire service EMS. Includes a field component involving wilderness rescue and emergency medicine. Must be taken concurrently with EMS 2613.

## Medical Laboratory Science

**MLS 1501 Introduction to the Medical Laboratory Profession 2 s.h.**

Overview of the medical laboratory profession, ethics, responsibilities and clinical relevance of laboratory procedures.

**Prereq.:** MATH 1504 or level 20 on Math Placement Test, high school chemistry or CHEM 1501, high school biology or BIOL 1505.

**Concurrent with:** MLS 1501L.

**MLS 1501L Introduction to the Medical Laboratory Profession Laboratory 1 s.h.**

Phlebotomy, specimen collection and processing; basic medical laboratory exercises. Three hours lab per week.

**Prereq.:** MATH 1504 or level 20 on Math Placement Test, high school chemistry or CHEM 1501, high school biology or BIOL 1505.

**Concurrent with:** MLS 1501.

**MLS 3700 Clinical Chemistry 2 3 s.h.**

Instrumentation and clinical relevance of applied chemical techniques including immunoassays, therapeutic drug monitoring, enzymes, trace elements, and point-of-care technology; quality control and assurance, case studies, and problem solving in clinical chemistry.

**Prereq.:** MLT 2601 or CHEM 1515.

**Concurrent with:** MLS 3700L.

**MLS 3700L Clinical Chemistry 2 Laboratory 1 s.h.**

Thyroid, digoxin, B12, folic acid, antinuclear antibodies and T and B cell receptor procedures utilized in a clinical laboratory. Three hours lab per week.

**Prereq.:** MLT 2601, MLT 2601L or CHEM 1515.

**Concurrent with:** MLS 3700.

**MLS 3701 Clinical Hematology 1 3 s.h.**

Hematopoiesis; theory and laboratory application of manual procedures in hematology including cell counts, hemoglobin, hematocrit, and differentials; introductory hemostasis and laboratory applications. Two hours of lecture and 3 hours of laboratory per week.

**Prereq.:** MLS 1501, MLS 1501L, BIOL 2601 with a minimal grade of "C".

**MLS 3701L Clinical Hematology 1 Laboratory 0 s.h.**

Clinical Hematology 1 Laboratory.

**MLS 3702 Clinical Hematology 2 3 s.h.**

Advanced theory and laboratory procedures in hematology and hemostasis, including leukemia, anemia, hematopathology and coagulation disorders; abnormal differentials and automated methods. Two hours of lecture and 3 hours of laboratory per week.

**Prereq.:** MLS 3701, MLS 3701L with a minimal grade of "C".

**MLS 3702L Clinical Hematology 2 Laboratory 0 s.h.**

Clinical Hematology 2 Laboratory.

**MLS 3703 Clinical Immunology 3 s.h.**

Fundamentals of immunology, including both humoral and cellular immunological responses. Applications of immunological methods in medical research and patient treatment. Recommended BIOL 3702.

**Prereq.:** BIOL 2601.

**MLS 3703L Clinical Immunology Laboratory 1 s.h.**

VDRL, ASO, febrile, latex, pregnancy, and viral tests; flocculation, precipitation, complement fixation, and titration procedures for various diseases. Three hours lab per week. Identical with MLT 3703L and BIOL 3703L.

**Prereq.:** MLS 1501, MLS 1501L, BIOL 2602.

**Concurrent with:** MLS 3703.

**MLS 3787 Diagnostic Microbiology 3 s.h.**

Clinical applications of human pathogenic microorganisms; infections, frequency, isolation, identification, and treatment of bacteria, fungi, viruses, and parasites. Case studies, problem solving, and quality assurance in clinical microbiology. Three hours lecture per week.

**Prereq.:** BIOL 2602.

**Concurrent with:** MLS 3787L.

**MLS 3787L Diagnostic Microbiology Laboratory 2 s.h.**

A clinical approach to the study of bacteria, fungi, viruses, and parasites. Methods to isolate and identify clinically significant pathogens from clinical specimens; case studies in clinical microbiology. Six hours lab per week. Identical with MLT 3787L.

**Prereq.:** BIOL 2602.

**Concurrent with:** MLS 3787.

**MLS 4800 Advanced Clinical Chemistry 4 s.h.**

Didactics and critical analysis of clinical chemistry. Four hours of lecture. Grading is Traditional or PR.

**Prereq.:** Acceptance into a clinical internship.

**MLS 4800L Advanced Clinical Chemistry Clinical Experience 2 s.h.**

Clinical experience and critical analysis of clinical chemistry; Competency based clinical practice. Grading is Traditional or PR.

**Prereq.:** Acceptance into a clinical internship.

**MLS 4801 Advanced Hematology 4 s.h.**

Diacritics and clinical analysis of clinical hematology. Four hours of lecture. Grading is Traditional or PR.

**Prereq.:** Acceptance into a clinical internship.

**MLS 4801L Advanced Hematology Clinical Practice 3 s.h.**

Clinical practice of clinical hematology. Competency based clinical practice. Grading is Traditional PR.

**Prereq.:** Acceptance into a clinical internship.

**MLS 4802 Advanced Immunohematology 4 s.h.**

Didactics and critical analysis of blood banking, Immunohematology, and Transfusion Medicine. Four hours of lecture. Grading is Traditional or PR.

**Prereq.:** Acceptance into a clinical internship.

**MLS 4802L Advanced Immunohematology Clinical Practice 3 s.h.**

Clinical practice and critical analysis of blood banking, Immunohematology, and Transfusion Medicine. Competency based clinical practice. Grading is Traditional or PR.

**Prereq.:** Acceptance into a clinical internship.

**MLS 4803 Advanced Microbiology 5 s.h.**

Didactics and critical analysis of bacteriology, mycology, virology and Parasitology. Five hours of lecture. Grading is Traditional or PR.

**Prereq.:** Acceptance into a clinical internship.

**MLS 4803L Advanced Microbiology Clinical Practice 3 s.h.**

Clinical practice and critical analysis of bacteriology, mycology, virology, and parasitology. Competency based clinical practice. Grading is Traditional or PR.

**Prereq.:** Acceptance into a clinical internship.

**MLS 4804 Miscellaneous Clinical Experience 4 s.h.**

Didactic and clinical analysis of specimen collection and processing. Management, education, molecular diagnostics, hemostasis, clinical immunology, and urinalysis and body fluids. Four hours of lecture. Capstone course requiring laboratory research project. Grading is Traditional or PR.

**Prereq.:** Acceptance into a clinical internship.

**MLS 4804L Miscellaneous Clinical Practice 2 s.h.**

Clinical practice and critical analysis of specimen collection and processing, management, education, molecular diagnostics, hemostasis, clinical immunology, and urinalysis and body fluids. Competency based clinical practice. Capstone course requiring laboratory research project. Grading is Traditional or PR.

**Prereq.:** Acceptance into a clinical internship.

## Medical Laboratory Technology

**MLT 1501 Introduction to the Medical Laboratory Profession 2 s.h.**

Overview of the medical laboratory profession, ethics, responsibilities and clinical relevance of laboratory procedures.

**Prereq.:** MATH 1504 or level 20 on Math Placement Test, high school chemistry or CHEM 1501, high school biology or BIOL 1505.

**Concurrent with:** MLT 1501L.

**MLT 1501L Introduction to the Medical Laboratory Profession Laboratory 1 s.h.**

Phlebotomy, specimen collection and processing; basic medical laboratory exercises. Three hours lab per week.

**Prereq.:** MATH 1504 or level 20 on Math Placement Test, high school chemistry or CHEM 1501, high school biology or BIOL 1505.

**Concurrent with:** MLT 1501.

**MLT 1502 Urinalysis and Body Fluids 2 s.h.**

Theory and techniques in the analysis of urine and body fluids.

**Prereq.:** MLT 1501, MLT 1501L, BIOL 2601.

**Concurrent with:** MLT 1502L.

**MLT 1502L Urinalysis and Body Fluids Laboratory 1 s.h.**

Chemical and microscopic analysis of urine. Three hours lab per week.

**Prereq.:** MLT 1501, MLT 1501L, BIOL 2601.

**Concurrent with:** MLT 1502.

**MLT 1503 Immunohematology 3 s.h.**

Fundamental theories and techniques of immunohematology and blood banking; genetic theories, problem solving, and case studies.

**Prereq.:** BIOL 2601 and MLT 1501.

**Concurrent with:** MLT 1503L and BIOL 2602.

**MLT 1503L Immunohematology Laboratory 1 s.h.**

ABO and RH typing, direct and indirect antiglobulin testing, compatibility testing. Three hours lab per week.

**Prereq.:** MLT 1501, MLT 1501L, BIOL 2601.

**Concurrent with:** MLT 1503.

**MLT 2601 Clinical Chemistry 1 2 s.h.**

Medical laboratory applications of clinical chemistry.

**Prereq.:** MLT 1501, MLT 1501L, CHEM 1515.

**Concurrent with:** MLT 2601L.

**MLT 2601L Clinical Chemistry 1 Laboratory 1 s.h.**

Spectrophotometric, semi-automated, and automated analysis of glucose, electrolytes, enzymes, and other chemical constituents of serum. Three hours lab per week.

**Prereq.:** MLT 1501, MLT 1501L, CHEM 1515.

**Concurrent with:** MLT 2601.

**MLT 2603 Topics in Medical Laboratory Technology 4 s.h.**

Clinical laboratory applications to molecular diagnostics, serology, virology and parasitology. Regulations, information processing, education, ethical, professional issues. Critical analysis of clinical laboratory information. Two hours lecture and six hours laboratory per week.

**Prereq.:** MLT 1502 and MLT 1503 with a minimal grade of "C".

**MLT 2687L Microbiology for Health Care Laboratory 1 s.h.**

Medical microbiology laboratory for health care professionals. Laboratory methods in the transmission, identification, prevention, and treatment of common bacterial, viral, fungal, and parasitic pathogens with a focus on nosocomial infections. Three hours lab per week.

**Prereq.:** BIOL 1545, BIOL 1551, BIOL 2601, or permission of instructor.

**Concurrent with:** BIOL 1560.

**MLT 3700 Clinical Chemistry 2 3 s.h.**

Instrumentation and clinical relevance of applied chemical techniques including immunoassays, therapeutic drug monitoring, enzymes, trace elements, and point-of-care technology; quality control and assurance, case studies, and problem solving in clinical chemistry.

**Prereq.:** MLT 2601 or CHEM 1515.

**Concurrent with:** MLT 3700L.

**MLT 3700L Clinical Chemistry 2 Laboratory 1 s.h.**

Thyroid, digoxin, B12, folic acid, antinuclear antibodies and T and B cell receptor procedures utilized in a clinical laboratory. Three hours lab per week.

**Prereq.:** MLT 2601, MLT 2601L or CHEM 1515.

**Concurrent with:** MLT 3700.

**MLT 3701 Clinical Hematology 1 3 s.h.**

Hematopoiesis; theory and laboratory application of manual procedures in hematology including cell counts, hemoglobin, hematocrit, and differentials; introductory hemostasis and laboratory applications. Two hours of lecture and 3 hours of laboratory per week.

**Prereq.:** MLT 1501, MLT 1501L, BIOL 2601 with a minimal grade of "C".

**MLT 3701L Clinical Hematology 1 Laboratory 0 s.h.**

Clinical Hematology 1 Laboratory.

**MLT 3702 Clinical Hematology 2 3 s.h.**

Advanced theory and laboratory procedures in hematology and hemostasis, including leukemia, anemia, hematopathology and coagulation disorders; abnormal differentials and automated methods. Two hours of lecture and 3 hours of laboratory per week.

**Prereq.:** MLT 3701, MLT 3701L with a minimal grade of "C".

**MLT 3702L Clinical Hematology 2 Laboratory 0 s.h.**

Clinical Hematology 2 Laboratory.

**MLT 3703L Clinical Immunology Laboratory 1 s.h.**

VDRL, ASO, febrile, latex, pregnancy, and viral tests; flocculation, precipitation, complement fixation, and titration procedures for various diseases. Three hours lab per week. Identical with MLS 3703L and BIOL 3703L.

**Prereq.:** MLS 1501, MLS 1501L, BIOL 2602.

**Concurrent with:** MLS 3703.

**MLT 3706 Medical Laboratory Seminar 2 s.h.**

Internship evaluation, special topics in the clinical laboratory. Case studies in the clinical laboratory.

**Prereq.:** MLT 2603.

**Concurrent with:** MLT 3716.

**MLT 3710 Interpretation of Clinical Laboratory Results 1 s.h.**

The significance of laboratory results and how they relate to gender and age.

**Prereq.:** MLT 2601, MLT 2601L or permission of instructor.

**MLT 3716 Clinical Internship 8 s.h.**

Thirty-six hours per week of practical application of skills in affiliate hospitals and private laboratories.

**Prereq.:** completion of 30 s.h. of MLT curriculum with a grade of "C" or better and a minimum 2.5 GPA.

**Concurrent with:** MLT 3706.

**MLT 3787 Diagnostic Microbiology 3 s.h.**

Clinical applications of human pathogenic microorganisms; infections, frequency, isolation, identification, and treatment of bacteria, fungi, viruses, and parasites. Case studies, problem solving, and quality assurance in clinical microbiology. Three hours lecture per week.

**Prereq.:** BIOL 2602.

**Concurrent with:** MLT 3787L.

**MLT 3787L Diagnostic Microbiology Laboratory 2 s.h.**

A clinical approach to the study of bacteria, fungi, viruses, and parasites. Methods to isolate and identify clinically significant pathogens from clinical specimens; case studies in clinical microbiology. Six hours lab per week. Identical with BIOL 3787L, MLS 3787L. 2 s.h.

**Prereq.:** BIOL 2602.

**Concurrent with:** MLT 3787.

## Public Health

**PHLT 1500 Introduction to Online Learning in Health Professions 3 s.h.**

Prepare students to take online courses including the use of the Blackboard learning environment and orient students to YSU and YSU's Health Professions programs. Help students acquire basic skills to be successful in online learning and emphasize skills and resources necessary to be successful in their personal, academic and career-related pursuits. In addition, this course will introduce students to topics such as career assessment and how to become a successful health professional in the 21st Century. Should be taken during a student's first 30 hours at YSU. Listed also as AHLT 1500 and RESC 1500.

**Prereq.:** PHLT, AHLT or RESC major.

**PHLT 1513 Introduction to Environmental Health and Safety 3 s.h.**

Provides an introduction to and overview of the key areas of environmental health, one of the core areas of public health. Using the perspectives of the population and community, the course will cover factors associated with the development of environmental health problems.

**Gen Ed:** Environmental Sustainability, Social and Personal Awareness.

**PHLT 1531 Fundamentals of Public Health 3 s.h.**

Provides an introduction to public health concepts and practice by examining the philosophy, purpose, history, organization, functions, tools, activities, and results of public health at the national, state, and community levels. Introduces the core disciplines of public health, and current events and issues in the field.

**Gen Ed:** Social Science, Well Being, Social and Personal Awareness.

**PHLT 1568 Healthy Lifestyles 3 s.h.**

Personal and consumer health issues and prevention of premature death analyzed from physical, emotional, social and spiritual perspectives. Plans for disease prevention and healthful living. Importance of health promotion to the individual, region, nation and world.

**Gen Ed:** Well Being, Social and Personal Awareness.

**PHLT 2607 Ethical Issues in Public Health 3 s.h.**

Examines practical aspects of ethics and public health. This course will help students develop the analytical skills necessary for evaluating ethical issues related to public health policy and public health prevention, treatment, and research.

**Prereq.:** PHLT 1531 or PHLT 1568.

**PHLT 2692 Human Sexuality 3 s.h.**

An interdisciplinary approach to the study of human sexuality.

**Prereq.:** PHLT 1568.

**Cross listed with** PSYC 2692.

**PHLT 3702 Health Education Theory and Methods 3 s.h.**

Overview of health education theory, history, ethics, and methods for the community, school, workplace and health care setting. Provides a foundation in teaching methods. Also listed as HEPE 3702.

**Prereq.:** PHLT 1568.

**PHLT 3709 Elements of Urban Environmental Health Practices 3 s.h.**

Focus on development and implementation issues of environmental and public health programs necessary for urban and rural communities to meet acceptable public health standards at the local health department level with emphasis on resources and staffing. AHLT 3708, or permission of instructor. Also listed as AHLT 3709.

**PHLT 3715 Health Education for Grades PreK-6 3 s.h.**

Comprehensive School Health Education curricula, methods and materials for teaching pre-kindergarten through sixth grade students. Also listed as HEPE 3715.

**Prereq.:** PHLT 1568, PHLT 3702 and BIOL 1545 or AHLT 1500 and AHLT 1501.

**PHLT 3716 Health Education for Grades 7-12 3 s.h.**

Comprehensive School Health Education curricula, methods and materials for teaching seventh through twelfth grade students.

**Prereq.:** PHLT 1568, PHLT 3702 and BIOL 1545 or AHLT 1500 and AHLT 1501.

**PHLT 3725 Topics in Public Health 3 s.h.**

Examines topics of relevance to public health. Specific topics include current issues and emerging research findings, with a focus on health behavior and health promotion, epidemiology, public health administration, environmental health, biostatistics, through analysis of public health problems, and application of principles and practices of public health.

**Prereq.:** PHLT 1531.

**PHLT 3731 Drug Use and Abuse 3 s.h.**

Alcohol, tobacco, and other drug use and their relationship to behavior and society. Emphasis on prevention, early intervention, and treatment in the behavioral medicine, health care, educational and criminal justice systems.

**Prereq.:** PHLT 1568.

**PHLT 3757 Health and Disease 4 s.h.**

Study of the major chronic and communicable diseases affecting humans. Emphasis on etiology, prevention through health education and health promotion methods, and materials.

**Prereq.:** PHLT 1568, BIOL 1545 or AHLT 1500 and AHLT 1501.

**PHLT 3791 Community Health 3 s.h.**

Study of the need for organized community health efforts: problems of chronic and communicable diseases, environmental health, world health, and the public and private agencies involved in their solutions.

**Prereq.:** PHLT 1568.

**PHLT 4801 Field Work in Health Education 1 s.h.**

Provides the health education major with a supervised teaching or agency experience. Three hours per week.

**Prereq.:** PHLT 3701L and PHLT 3791.

**PHLT 4826 Community Health Planning and Promotion 4 s.h.**

Fundamental techniques for assessing needs, planning, marketing and implementing health promotion programs in the workplace and community.

**Prereq.:** PHLT 3791 and AHLT 5807.

**PHLT 4827 Evaluation of Health Promotion Programs 3 s.h.**

Theories and methods of program evaluation for assessing the quality of health promotion programs.

**Prereq.:** PHLT 4826.

**PHLT 4828 Grant Writing 3 s.h.**

Methods and techniques for writing grant proposals related to health. Emphasis on competence in development of narrative, program plan, evaluation design, time line, identifying grant sources and managing funded projects.

**Prereq.:** PHLT 4826 and PHLT 4827.

**PHLT 4891 Public Health Internship 8 s.h.**

Supervised experience designed to provide an opportunity to enable students to apply entry-level competencies acquired in the classroom setting to public health practice through experiential activities. The student will be required to be at the internship approximately 23-24 hours per week in a 15 week semester, for a total of 350 hours.

**Prereq.:** senior standing and consent of instructor.

**PHLT 4892 Environmental Health and Safety Internship 8 s.h.**

Supervised experience designed to provide an opportunity to enable students to apply entry-level competencies acquired in the classroom setting to environmental health practice through experiential activities. The student will be required to be at the internship approximately 23-24 hours per week in a 15 week semester, for a total of 350 hours.

**Prereq.:** senior standing and consent of instructor.

**PHLT 4898 Environmental Health and Safety Senior Seminar 3 s.h.**

Synthesis of professional course work. Development of resume and professional portfolio; preparation for internship; administration of outcome assessment instruments for public health majors.

**Prereq.:** senior standing and consent of instructor.

**PHLT 4899 Public Health Senior Seminar 3 s.h.**

Synthesis of professional course work. Development of resume and professional portfolio; preparation for internship; administration of outcome assessment instruments for public health majors; preparation for the CHES certification exam.

**Prereq.:** Senior standing and consent of instructor.

**Gen Ed:** Capstone.

**PHLT 5804 Multicultural Health 3 s.h.**

Explore multicultural models of health, illness, and treatments or therapies to increase understanding of various approaches to prevention, health promotion, healing, and maintenance of health and well-being.

**Prereq.:** PHLT 1568 or PHLT 1531 and junior standing.

**PHLT 5810 Agents of Mass Casualty 3 s.h.**

Explorations of biological agents, chemical agents or radiological and nuclear devices, terrorism, security, emergency planning, and community and public health roles in the event of a deployment of these agents. Increase understanding through case analysis of how to apply course concepts to real world scenarios.

**Prereq.:** PHLT 1531 or PHLT 1568 and junior standing.

**PHLT 5812 Crisis Management in Public Health 3 s.h.**

Exploration of roles, thought processes and actions of public health professionals during crisis situations, by understanding the anatomy of crises. Increase knowledge through case analysis of how to apply course concepts to real world scenarios.

**Prereq.:** PHLT 1531 or PHLT 1568 and junior standing.

**PHLT 5893 Workshop in Health Education 1-3 s.h.**

Concentrated study of a selected topic related to health education. The department will select and announce the topic and determine the credit hours based on the frequency and duration of workshop meetings. May be repeated for a maximum of 6 s.h. with change in topic.

**Prereq.:** PHLT 3701, PHLT 3791 or permission of instructor.

## Respiratory Care

**RESC 1500 Introduction to Online Learning in Health Professions 3 s.h.**

Prepare students to take online courses including the use of the Blackboard learning environment and orient students to YSU and YSU's Health Professions programs. Help students acquire basic skills to be successful in online learning and emphasize skills and resources necessary to be successful in their personal, academic and career-related pursuits. In addition, this course will introduce students to topics such as career assessment and how to become a successful health professional in the 21st Century. Should be taken during a student's first 30 hours at YSU. Listed also as PHLT 1500 and AHLT 1500.

**Prereq.:** PHLT, AHLT or RESC major.

**RESC 1503 Respiratory Procedures 1 4 s.h.**

Appropriate use of selected respiratory care procedures. Three hours lecture, three hours lab.

**Prereq.:** RESC 1531.

**RESC 1520 Respiratory Care Assessment 1 3 s.h.**

Diagnostic techniques used in evaluating patients with cardiopulmonary disorders. Two hour lecture, two hours lab.

**Prereq.:** RESC 1530.

**RESC 1529 Respiratory Care Orientation 2 s.h.**

Scope of profession including key organizations, role within health-care system and career options. Includes applied anatomy and physiology of respiratory system and basic assessment and therapeutic procedures. Hospital experiences included. One hour lecture and two hours lab.

**RESC 1531 Respiratory Care Essentials 3 s.h.**

Application of basic scientific principles to the respiratory-care profession. Includes coverage of basic equipment, assessment techniques, and therapeutic procedures. Two hours lecture and two hours lab.

**RESC 2620 Respiratory Assessment 2 3 s.h.**

Advanced techniques in the assessment of cardiopulmonary disorders. Two hours lecture, two hours lab.

**RESC 2621 Cardiopulmonary Disease 4 s.h.**

Comprehensive overview of cardiopulmonary disorders encountered by respiratory therapists. Includes applications to clinical protocols.

**Prereq.:** RESC 2620.

**RESC 2699 Clinical Practice 1 1 s.h.**

Orientation to hospital and department policies, including exposure to and practice with basic respiratory care procedures. Five hours a week in clinics.

**Prereq.:** RESC 2621.

**RESC 3706 Respiratory Procedures 2 3 s.h.**

Airway management techniques and other critical care procedures. Two hours lecture, three hours lab.

**Prereq.:** RESC 2620.

**RESC 3708 Respiratory Clinical Specialties 3 s.h.**

Fundamentals of hemodynamic monitoring, management of burn patients, and assessment of neurotrauma. Two hours lecture, three hours lab.

**Prereq.:** RESC 3706.

**RESC 3709 Neonatal/Pediatric Respiratory Care 4 s.h.**

Respiratory care applications in neonatal/pediatric settings. Three hours lecture, three hours lab.

**Prereq.:** RESC 3706.

**RESC 3720 Mechanical Ventilation 1 3 s.h.**

Basic theory and application of mechanical ventilation in critical care areas. Two hours lecture, three hours lab.

**Prereq.:** RESC 3708.

**RESC 3725 Mechanical Ventilation 2 3 s.h.**

Advanced theory and application of mechanical ventilation. Includes home care ventilators. Two hours lecture, three hours lab.

**Prereq.:** RESC 3720.

**RESC 3731 Respiratory Care Management 3 s.h.**

A study of the basic managerial process, organizational concepts, budgeting, quantitative planning, decision-making, and issues of control as they relate to the manager of a hospital-based respiratory care department.

**Prereq.:** RESC 3725.

**RESC 3740 Clinical Practice 2 4 s.h.**

Application of basic and advanced respiratory care modalities. Three hour lab, twenty clinical hours per week.

**Prereq.:** RESC 2699.

**RESC 3741 Clinical Practice 3 3 s.h.**

Application of basic and advanced respiratory care modalities for pediatric and adult patients. Twenty hours a week.

**Prereq.:** RESC 3740.

**RESC 3750 Pulmonary Rehabilitation 2 s.h.**

Demonstration of the multidisciplinary nature of a pulmonary rehabilitation program. The role of the respiratory care practitioner in preventive care activities.

**Prereq.:** RESC 3706.

**RESC 3765 Advanced Respiratory Care Diagnostics 3 s.h.**

The study of the fundamentals of advanced respiratory care diagnostics. Three hour lecture.

**Prereq.:** RESC 3708 or permission of instructor.

**RESC 4801 Special Topics in Respiratory Care 1-3 s.h.**

Focused research of a special problem/issue related to respiratory care. The topic of interest allows the student to participate in focused investigation of aspects of administration, clinical specialization, or research. May be repeated up to a total of 3 s.h.

**Prereq.:** acceptance in BSRC completion program, junior standing, or permission of instructor.

**RESC 4810 Advanced Neonatal and Pediatric Case Management 3 s.h.**

This course is designed to strengthen the student's knowledge of Neonatal/Pediatric disorders by incorporating evidence-based practices into case management. Current protocols will also be discussed.

**Prereq.:** acceptance in BSRC completion program, junior standing, or permission of instructor.

**RESC 4831 Pulmonary Care Management 3 s.h.**

Pathology as it relates to care of patients with pulmonary-related disorders.

**Prereq.:** RESC 3725.

**RESC 4835 Clinical Practice 4 3 s.h.**

Application of advanced respiratory modalities and diagnostics for pediatric and adult patients. Capstone course for RC program. Fifteen hours a week.

**Prereq.:** RESC 3741.

**RESC 4838 Respiratory Seminar 1 1 s.h.**

Review of current aspects of clinical respiratory care. A content analysis of the updated NBRC Entry-Level exam will be included.

**Prereq.:** RESC 3741.

**RESC 4842 Respiratory Seminar 2 1 s.h.**

Review of current aspects of clinical respiratory care. A content analysis of the updated NBRC Advanced Practitioner exam will be included.

**Prereq.:** RESC 4838.

**RESC 4846 Sleep Diagnostics 1 3 s.h.**

Scientific theory and clinical techniques needed to perform polysomnography. Two hours lecture, two hours lab.

**Prereq.:** Senior standing and RESC 3740.

**RESC 4847 Sleep Clinics 1 1 s.h.**

Polysomnographic techniques in the clinical setting. Approximately 80 contact hours for each course.

**Prereq.:** Senior standing and RESC 4846.

**RESC 4848 Sleep Diagnostics 2 3 s.h.**

Scientific theory and clinical techniques needed to perform polysomnography. Two hours lecture, two hours lab.

**Prereq.:** Senior standing and RESC 4846.

**RESC 4849 Sleep Clinics 2 1 s.h.**

Polysomnographic techniques in the clinical setting. Approximately 80 contact hours for each course.

**Prereq.:** Senior standing and RESC 4848 and RESC 4847.

**RESC 4860 Advanced Management of the Ventilator Patient 3 s.h.**

Course will present current classifications, evidence-based research and application of mechanical ventilator concepts in critical care areas. Technical capabilities of modes will be described along with optimal settings. Current protocols in RC will also be discussed.

**Prereq.:** acceptance in BSRC completion program, junior standing, or permission of instructor.

**RESC 4862 Professional Pathways for Respiratory Care Practitioners 3 s.h.**

This course will explore select professional pathways available to the RCP. The foundations and role of the RCP are examined in four key areas: the sleep center, home care, PFT lab and HBO centers. The RCP will be introduced to the standards of care and practical application for each area.

**Prereq.:** acceptance in BSRC completion program, junior standing, or permission of instructor.

**RESC 4867 Fundamentals of Leader Development 3 s.h.**

This course will form the necessary core of self-awareness in relation to leader development. Through introducing concepts and examples of leadership and awareness of how one leads as an expression of self, RCPs will enhance leadership awareness and personal expression within their discipline.

**Prereq.:** acceptance in BSRC completion program, junior standing, or permission of the instructor.



**RESC 4870 Advanced Cardiopulmonary Case Management 3 s.h.**

This course is designed to strengthen the student's knowledge of C-P disorders by incorporating evidence-based practices into C-P case management. The student will learn to apply these strategies in acute care, transitional and long-term care settings. Current protocols will also be discussed.

**Prereq.:** acceptance in BSRC completion program, junior standing, or permission of instructor.

**RESC 4872 Technology Applications for RCPs 3 s.h.**

Exploration of technology applications for education, presentations, communications and management. Creation of digital media such as audio and/or video files, e-portfolios and web-based application of various technologies will be required. Application of technology to education or management will be evaluated through completions of a technology-enhanced project.

**Prereq.:** acceptance in BSRC completion program, junior standing, or permission of instructor.

## Associate of Applied Science in Emergency Medical Services

Program Director: Susan Kearns 330-941-1426 sekearns@ysu.edu

Emergency medical services programs are designed to educate persons to provide emergency prehospital care to people experiencing health crises. The goals of these programs are on three different levels:

- emergency medical technician
- paramedic certification
- Associate of Applied Science degree

The emergency medical technician course follows the Department of Transportation's national emergency medical services education standards, meeting all the knowledge requirements for entry-level emergency medical technician certification. To be eligible for the National Registry of Emergency Medical Technicians' certifying examination at the EMT level, the student must:

- Receive a grade of C or greater in:

COURSE	TITLE	S.H.
EMS 1500	Emergency Medical Technician	4
EMS 1500L	Emergency Medical Technician Laboratory	2
EMS 1500C	Emergency Medical Technician Clinical and Field Internship	1

- Successfully complete the field internship objectives

The Emergency Medical Technician Paramedic Certificate can be attained after successfully completing four semesters of study. The course of study provides the student with knowledge about the recognition, assessment, and practice of emergency medical care in the pre-hospital setting on an advanced life-support unit. It meets and exceeds all U.S. Department of Transportation national emergency medical services education standards. The Youngstown State University emergency medical services program is accredited by:

The Commission on Accreditation of Allied Health Education Programs  
<http://www.caahep.org>  
 25400 U.S. Highway 19 North, Suite 158  
 Clearwater, FL 33763  
 (727) 210-2350

Upon the recommendations of:

The Committee on Accreditation of Educational Programs for the EMS Professions  
<http://www.coaemsp.org>  
 CoAEMSP [#600045]  
 8301 Lakeview Parkway Suite 111-312

Rowlett, TX 75088  
 (214) 703-8445  
 fax (214) 703-8992

and

The Ohio Department of Public Safety Division of Emergency Medical Services  
 1970 West Broad Street  
 Columbus, OH 43223  
<http://www.ems.ohio.gov>  
 [ODPS #333]  
 (614) 466-9447  
 fax (614) 466-9461

The last reaccreditation site visit occurred on March 3 & 4, 2016, which resulted in continuing accreditation. The next reaccreditation visit is expected to occur in March 2021. The graduates of the paramedic program over the last three years have had a 96% pass rate on the National Registry of EMTs Paramedic examination.

The Associate of Applied Science degree is awarded following the completion of the advanced training program with clinical paramedical experiences. This program includes coursework for critical care paramedicine and multi-skilled EMS practitioner. Thirty percent of all teaching and clinical rotations are physician-instructed and/or precepted. To obtain the Associate of Applied Science degree (including the Emergency Medical Technician Certificate and the Paramedic Certificate), will require six semesters of study including two summer semesters.

For the certificate, admission requirements and procedures are the same as those applicable to the University and the Department of Health Professions with the addition of a minimum age of 18 years, and a current driver's license or state-issued I.D. The student must be Ohio EMT certified prior to being accepted into the paramedic program. (BIOL 1545 Allied Health Anatomy and Physiology) or the equivalent is a required prerequisite for admission into the paramedic program. A physical examination to attest to good health, finger printing, and a criminal background check are required. Drug testing may be required by the clinical or field internship site. Admission into the Associate of Applied Science degree program is restricted. Please refer to the admission policies available from the Department of Health Professions.

Course	Title	S.H.
<b>Year 1</b>		
<b>Summer</b>		
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
<b>Semester Hours</b>		<b>5</b>
<b>Fall</b>		
EMS 1501	Introduction to Prehospital Medicine	1
EMS 1502	General Pathophysiology for the Paramedic	3
EMS 1503	Patient Assessment and Airway Management	3
EMS 1504	Principles of Trauma	3
EMS 1505	Emergency Medical Techniques 1 Lab	1
EMS 1506	Emergency Medical Services Clinical 1	1
MATC 1501	Medical Terminology	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
EMS 1507	Cardiovascular Emergencies	3
EMS 1508	Cardiovascular Techniques Lab	1
EMS 1512	Medical Conditions and Management Techniques	3
EMS 1513	Emergency Medical Techniques 2 Lab	1
EMS 1514	Emergency Medical Services Operations	1
EMS 1515	Clinical Experience 2	1

EMS 1516	Prehospital Field Experience 1	1
PSYC 1560	General Psychology	3
<b>Semester Hours</b>		<b>14</b>

**Year 2**

**Summer**

EMS 2600	Emergency Medical Services Special Populations	3
EMS 2601	Emergency Medical Techniques 3 Lab	1
EMS 2603	Clinical Experience 3	2
EMS 2604	Prehospital Field Experience 2	1
EMS 2605	Pulmonary Emergencies	3
<b>Semester Hours</b>		<b>10</b>

**Fall**

EMS 2606	EMS Special Certifications	1
EMS 2607	EMS Special Certifications Lab	1
EMS 2609	EMS Prehospital Field Internship	3
ENGL 1550	Writing 1	3
SOC 1500	Introduction to Sociology	3
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	3
Completion of Paramedic Certificate - 46 s.h.		
(ENGL 1550, SOC 1500, CHEM 1505, and CHEM 1505L are not required for the certificate)		
<b>Semester Hours</b>		<b>14</b>

**Spring**

EMS 2613	Critical Care Paramedic	3
EMS 2614	Critical Care Paramedic Laboratory	1
EMS 2631	Advanced Clinical and Field Internship Experience	2
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
MATH 2623	Quantitative Reasoning	3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>73</b>

Applicants must have a State of Ohio EMT certification (completion of EMS 1500, EMS 1500L, and EMS 1500C or equivalent). A grade of C or greater is required for all EMS, PSYC, and MATC courses.

## Learning Outcomes

Graduates in the paramedic program will:

- Demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to their role as a paramedic (cognitive).
- Demonstrate technical proficiency in all skills necessary to fulfill the role as a paramedic (psychomotor).
- Demonstrate personal behavior consistent with professional and employer expectations for the paramedic (affective).

## Associate of Applied Science in Medical Assisting Technology

Ida Fusillo, MATC Program Director, (330) 941-1760 [irsorriento@ysu.edu](mailto:irsorriento@ysu.edu)

The medical assisting technology program is a two-year program leading to the Associate of Applied Science degree. The program requires five semesters of study averaging 16 hours per semester to complete.

The mission of the medical assisting technology program is to provide an associate degree program uniting the disciplines of science, communications,

and medical training to afford the student an opportunity to acquire the technical and professional skills for immediate entry-level employment upon graduation.

The two-year Associate of Applied Science degree program in medical assisting technology at Youngstown State University is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Medical Assisting Education Review Board (MAERB). The last comprehensive review was conducted in 2012-2013, resulting in continuing accreditation of the Medical Assisting Technology program. The next comprehensive review will be conducted no later than May, 2020.

The Commission on Accreditation of Allied Health Education Programs  
25400 U.S. Highway 19 North, Suite 158  
Clearwater, FL 33763  
(727) 210-2350

Upon graduation, the student is eligible to apply for the certification exam given by the American Association of Medical Assistants (AAMA). Successful completion of the exam confers the designation Certified Medical Assistant, or CMA (AAMA). Grounds for denial of eligibility for the CMA credential is falsifying information on the application or being guilty of a felony.

The Medical Assisting Technology program at Youngstown State University has a job placement rate average of 80.6% over the past five years.

The curriculum provides graduates with the skills necessary to perform dual roles as administrative and/or clinical assistants in private physician offices, clinics, or hospital outpatient departments. The administrative skills include:

- public relations
- receptionist activities
- record management
- secretarial skills
- bookkeeping
- insurance and coding
- banking
- payroll
- managerial responsibilities

Clinical skills include:

- preparing the patient for examination and procedures
- taking medical histories and patient assessment
- operating and maintaining medical equipment
- collecting specimens
- performing laboratory tests
- teaching and counseling patients

Admission to the program is not restricted, but high school prerequisites include a science, math, and computer or typing course.

A grade of C or better is required in all MATC courses and a 2.0 over-all grade point average (GPA) is required to register for MATC 2692 Medical Assisting Externship, (Practicum). The student is not allowed to receive any type of compensation, monetary or otherwise, from the externship site. Prior to scheduling the practicum, the student's records will be reviewed by the program director to determine if all MATC courses have been satisfactorily completed and all deficiencies have been made up.

The student must have a physical examination report with a negative tuberculin-screening test and hepatitis B vaccination prior to MATC 2620 Advanced Clinical Procedures, MATC 2680 Medical Laboratory Procedures and the practicum.

The student must have current certification in Healthcare Provider CPR to participate in the externship experience. The semester prior to the practicum

the student will be required to have a background check submitting to fingerprint for a FBI (federal) and BCI (civilian) criminal records check.

For more information, visit **Medical Assisting Technology** (<http://www.yasu.edu/academics/bitonte-college-health-and-human-services/medical-assisting-technology-associate>).

COURSE	TITLE	S.H.
<b>General University Requirements</b>		
Core Competencies 9		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Arts and Humanities 3		
Natural Sciences		
BIOL 1545	Allied Health Anatomy and Physiology	5
AND		
BIOL 1545L	Allied Health Anatomy and Physiology Laboratory	0
Social Science		
PSYC 1560	General Psychology	3
Social and Personal Awareness		
PHLT 1568	Healthy Lifestyles	3
First Year Experience		
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Major Requirements 31 sh</b>		
MATC 1501	Medical Terminology	3
MATC 1502	Medical Law and Ethics	3
MATC 2600	Medical Insurance Forms	2
MATC 2602	Diagnostic and Procedural Coding	2
MATC 2605	Introduction to Pharmacology	3
MATC 2610	Introduction to Disease Processes	3
MATC 2611L	Clinical Procedures Lab	1
MATC 2612	Medical Records Management	2
MATC 2614	Medical Office Procedures	3
MATC 2620 & 2620L	Advanced Clinical Procedures and Advanced Clinical Procedures Lab	4
MATC 2680 & 2680L	Medical Laboratory Procedures and Medical Laboratory Procedures Lab	2
MATC 2692	Medical Assisting Externship	3
<b>Related Course Requirements</b>		
ACCT 2602	Financial Accounting	3
AHLT 4810	Management Skills for Health Professionals	3
CSIS 1514	Business Computer Systems	3
INFO 1575	Document Preparation	4
BIOL 1560	Microbiology for the Health Professions	2
BIOL 1560L	Microbiology Laboratory for Health Professions	1
OR		
MLT 2687L	Microbiology for Health Care Laboratory	1
Total Degree Hours 72 sh		

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MATC 1501	Medical Terminology (offered first and second semester and online)	3
MATC 1502	Medical Law and Ethics (offered first and second semester)	3
ENGL 1550	Writing 1	3

CSIS 1514	Business Computer Systems (offered day and evening)	3
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory (AHLT may be substituted with faculty advisor's approval)	5
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>19</b>
<b>Spring</b>		
MATC 2600	Medical Insurance Forms	2
MATC 2612	Medical Records Management	2
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
PHLT 1568	Healthy Lifestyles (also offered online)	3
PSYC 1560	General Psychology	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
MATC 2614	Medical Office Procedures	3
MATC 2610	Introduction to Disease Processes	3
MATC 2611L	Clinical Procedures Lab	1
MATC 2602	Diagnostic and Procedural Coding	2
BIOL 1560	Microbiology for the Health Professions	2
BIOL 1560L or MLT 2687L	Microbiology Laboratory for Health Professions or Microbiology for Health Care Laboratory	1
AHLT 4810	Management Skills for Health Professionals (offered online only)	3
Arts and Humanities Elective 3		
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
MATC 2605	Introduction to Pharmacology (offered first and second semester)	3
MATC 2620	Advanced Clinical Procedures	3
MATC 2620L	Advanced Clinical Procedures Lab	1
MATC 2680	Medical Laboratory Procedures	1
MATC 2680L	Medical Laboratory Procedures Lab	1
INFO 1575	Document Preparation (offered day and evening)	4
ACCT 2602 or ACCT 1503	Financial Accounting or Elementary Accounting	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
MATC 2692	Medical Assisting Externship (Offered Fall and Spring Semesters)	3
<b>Semester Hours</b>		<b>3</b>
<b>Total Semester Hours</b>		<b>72</b>

## Learning Outcomes

Graduates of the medical assisting technology program will:

- Demonstrate the ability to comprehend, apply, and evaluate relevant information presented in medical assisting and related courses to the role of the entry-level medical assistant in a variety of medical settings.
- Demonstrate technical proficiency in the performance of the administrative and clinical competencies as outlined in the essentials for

the Commission on Accreditation on Allied Health Education Programs and the Medical Assisting Education Review Board (MAERB).

- Demonstrate interpersonal skills and participate in professional activities including continuing educational opportunities consistent with the professional expectations of a (certified) medical assistant.
- Be able to function as an entry-level medical assistant by demonstration of proficiency in administrative and clinical competencies in a variety of medical settings.

## Associate of Applied Science in Medical Laboratory Technician

### Medical Laboratory Programs

Laboratory analysis play an important role in the detection, diagnosis, and treatment of many diseases. Laboratory professionals perform a myriad of such tests to aid the physician in the management of disease.

For more information, contact Joan O'Connell-Spalla 330-941-1761  
joconnellspalla@ysu.edu

### Medical Laboratory Technician (MLT-AAS) Curriculum

The medical laboratory technician program is a two-year program leading to the Associate of Applied Science degree. The curriculum focuses on the knowledge and basic skills necessary to understand and master the procedures performed in the medical laboratory. Included are the principles, methods, calculations, and interpretation of laboratory procedures, computer technology, and communication and interpersonal skills. Technical instruction includes procedures in hematology, microbiology, immunohematology, clinical chemistry, and body fluids. This program requires five semesters of study including one summer semester.

Medical laboratory technicians (MLT) work in a supportive role in a hospital laboratory, private laboratory, clinic, public health facility, or pharmaceutical laboratory. The MLT performs laboratory tests under the supervision or direction of pathologists and other physicians, and clinical laboratory scientists. Physicians and other health care professionals use these tests to determine the presence and extent of disease, the etiologic implications about the cause of disease, and to monitor the treatment of the disease.

The MLT collects samples from patients and develops data on the blood, tissues and body fluids by using a variety of precise methodologies and technologies. Medical laboratory technicians use modern instruments, with the ability to discriminate between similar items and correct errors using preset strategies. The MLT has knowledge of specific techniques and instrumentation and is able to recognize factors that affect laboratory procedures. The MLT also monitors quality assurance procedures.

The MLT program is accredited through the National Accrediting Agency for Clinical Laboratory Sciences and meets the standards developed by the American Society of Clinical Pathologists (ASCP).

The National Accrediting Agency for Clinical Laboratory Sciences  
5600 N. River Rd., Suite 720  
Rosemont, IL 60018-5119  
phone (773) 714-8886  
<http://www.nacls.org>

Over the past three program years, the MLT program has a 96.0% graduation rate and a 96.0% placement rate. Approximately 87% of those graduates who took the ASCP-MLT certification examination passed within one year of graduation from the program.

Graduates are eligible to take the certification examinations for MLT/CLT offered through ASCP and become certified as an MLT (ASCP).

Students must have a minimal Math Placement of Level 3 or its equivalent to be considered for the MLT program. Students in Pre-MLT are not considered to be enrolled in the MLT program. Students must first complete the following courses with a minimal grade of C:

COURSE	TITLE	S.H.
MLT 1501	Introduction to the Medical Laboratory Profession	2
MLT 1501L	Introduction to the Medical Laboratory Profession Laboratory	1
BIOL 2601	General Biology: Molecules and Cells	4
BIOL 2601L	General Biology: Molecules and Cells Laboratory	0
<b>Total Semester Hours</b>		<b>7</b>

Program admission is based on the applicant's overall GPA and performance in Chemistry, MLT, and Biology courses. All MLT, BIOL, & CHEM courses must be completed with a minimum grade of a "C". Students must maintain an overall program GPA of at least 2.5. Students receiving a total of 6 hours or more grades of "D"/ "F" in MLT, BIOL, or CHEM will be dismissed from the program. All developmental courses such as the following do not count toward degree requirements.

COURSE	TITLE	S.H.
ENGL 1539	Fundamentals of College Writing	4
ENGL 1540	Introduction to College Writing	3
RSS 1510A	Advanced College Success Skills	3
RSS 1510B	Basic College Success Skills	3
MATH 1501	Elementary Algebraic Models	5
MATH 1505	Intermediate Algebra with Applications	5
MATH 1507	Intermediate Algebra	3

There will be no course substitutions for MLT, BIOL, or CHEM courses. Students are permitted a total of two course repetitions for recalculation of GPA. Readmission to the program is based on GPA and availability of class space. Students must maintain a minimum of 2.5 GPA for placement into clinical practicum. Courses must be taken in proper sequence; students may invalidate clinical placement when failing to do so. Students are required to complete a physical exam, background check, and immunizations as program requirements.

Medical laboratory technicians are expected to function with a maximum degree of effectiveness in professional attitude, patient relations, and integrity. The capacity for competent performance at all levels must be assured before the student will be assigned to a clinical internship. The student must be competent in the didactic (knowledge), psychomotor (laboratory skills), and affective realm (attitude and responsibility) prior to clinical placement.

COURSE	TITLE	S.H.
<b>University Requirements</b>		
<b>Writing</b>		<b>6</b>
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
<b>Mathematics</b>		<b>3</b>
STAT 2625	Stat Lit and Crit Reasoning	
<b>General Education</b>		<b>2</b>
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	
Elective (3 s.h.)		<b>3</b>
<b>Science Requirements</b>		<b>12</b>
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	

CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	
<b>Major Requirements</b>		<b>44</b>
MLT 1501	Introduction to the Medical Laboratory Profession	
MLT 1501L	Introduction to the Medical Laboratory Profession Laboratory	
MLT 1502	Urinalysis and Body Fluids	
MLT 1502L	Urinalysis and Body Fluids Laboratory	
MLT 1503	Immunohematology	
MLT 1503L	Immunohematology Laboratory	
MLT 2601	Clinical Chemistry 1	
MLT 2601L	Clinical Chemistry 1 Laboratory	
MLT 2603	Topics in Medical Laboratory Technology	
MLT 3700	Clinical Chemistry 2	
MLT 3700L	Clinical Chemistry 2 Laboratory	
MLT 3701	Clinical Hematology 1	
MLT 3701L	Clinical Hematology 1 Laboratory	
MLT 3702	Clinical Hematology 2	
MLT 3702L	Clinical Hematology 2 Laboratory	
MLT 3703L	Clinical Immunology Laboratory	
MLT 3787	Diagnostic Microbiology	
MLT 3787L	Diagnostic Microbiology Laboratory	
MLT 3706	Medical Laboratory Seminar	
MLT 3710	Interpretation of Clinical Laboratory Results	
MLT 3716	Clinical Internship	
<b>Total Semester Hours</b>		<b>70</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MLT 1501 & 1501L	Introduction to the Medical Laboratory Profession and Introduction to the Medical Laboratory Profession Laboratory	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
ENGL 1550	Writing 1	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
General Education Requirement <sup>1</sup>		3
<b>Semester Hours</b>		<b>19</b>
<b>Spring</b>		
MLT 1502 & 1502L	Urinalysis and Body Fluids and Urinalysis and Body Fluids Laboratory	3
MLT 1503 & 1503L	Immunohematology and Immunohematology Laboratory	4
MLT 2601 & 2601L	Clinical Chemistry 1 and Clinical Chemistry 1 Laboratory	3
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
ENGL 1551	Writing 2	3
<b>Semester Hours</b>		<b>17</b>
<b>Summer</b>		
MLT 3700 & 3700L	Clinical Chemistry 2 and Clinical Chemistry 2 Laboratory	4

MLT 3701 & 3701L	Clinical Hematology 1 and Clinical Hematology 1 Laboratory	3
<b>Semester Hours</b>		<b>7</b>
<b>Year 2</b>		
<b>Fall</b>		
MLT 2603	Topics in Medical Laboratory Technology	4
MLT 3702 & 3702L	Clinical Hematology 2 and Clinical Hematology 2 Laboratory	3
MLT 3703L	Clinical Immunology Laboratory	1
MLT 3787 & 3787L	Diagnostic Microbiology and Diagnostic Microbiology Laboratory	5
STAT 2625	Stat Lit and Crit Reasoning	4
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
MLT 3706	Medical Laboratory Seminar	2
MLT 3710	Interpretation of Clinical Laboratory Results	1
MLT 3716	Clinical Internship	8
General Education Requirement		3
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>74</b>

<sup>1</sup> General education courses must fulfill their requirements for the baccalaureate degree. Students must take two courses from Arts & Humanities, two courses from Social Science, and two courses from Social and Personal Awareness.

Only those students who complete MLT 1501 Introduction to the Medical Laboratory Profession / MLT 1501L Introduction to the Medical Laboratory Profession Laboratory and BIOL 2601 General Biology: Molecules and Cells / BIOL 2601L General Biology: Molecules and Cells Laboratory with a grade of C or better will be considered for admission into the MLT Program.

## Learning Outcomes

- Graduates will be prepared to function as entry-level health care professionals in the medical laboratory as medical laboratory technicians and medical laboratory scientists. At entry level, the medical laboratory graduate will be able to demonstrate the ability to comprehend, apply and evaluate information relative to the medical laboratory profession.
- These learning outcomes include comprehension of the theory and the ability to apply and evaluate the didactics of hematology, clinical chemistry, immunohematology, microbiology, immunology, coagulation, molecular diagnostics, and other emerging diagnostics.
- Graduates will be prepared to function as entry-level health care professionals in the medical laboratory as medical laboratory technicians and medical laboratory scientists. Upon completion of the program, graduates will demonstrate technical proficiency in laboratory applications.
- These psychomotor learning outcomes include the performance of laboratory procedures in hematology, clinical chemistry, immunohematology, microbiology, immunology, coagulation, molecular diagnostics, and other emerging diagnostics. The graduate will demonstrate proficiency in the functions of all phases of laboratory analysis (pre-analytical, analytical, and post-analytical processes).
- Graduates will demonstrate professional conduct and interpersonal communication skills consistent with the medical laboratory profession.
- Students will exhibit the ability to think critically across all 3700-level courses through the application of fundamental didactic and psychomotor skills to assess the medical relevance and significance of specific aspects of laboratory testing.

## Bachelor of Science in Applied Science in Allied Health Completion Program

Graduates with an associate degree in dental hygiene, emergency medical services, respiratory care, medical assisting technology, medical laboratory technology, or in any medical/health related discipline (for example, radiological technology, physical therapy assistant, or dietetics) will be admitted to the BSAS in allied health program as juniors.

Graduates of non-accredited or diploma-based programs will be admitted provisionally and placed at a level determined by an evaluation of their program academic transcripts.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies 12		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
MATH 2623	Quantitative Reasoning	3
OR		
STAT 2625	Stat Lit and Crit Reasoning	4
Arts and Humanities 6		
Natural Sciences 6		
Social Science 6		
Social and Personal Awareness 6		
General Education Elective / First-Year Experience 3		
AHLT 1500	Introduction to Online Learning in Health Professions	3
<b>Major Requirements</b>		
AHLT 3704	Quantitative Methods in Health Sciences	3
AHLT 3708	Preventive Public Health Care	3
AHLT 3711	Health Care Information Systems	3
AHLT 4806	Research Methods	3
AHLT 4810	Management Skills for Health Professionals	3
AHLT 4820	Directed Research	3
AHLT 5807	Epidemiology	3
AHLT 5840	Comparative Health Systems	3
<b>Allied Health Electives</b>		
Select 6 s.h. from the following: 6		
AHLT 3705	Pharmacotherapeutics	
AHLT 3707	Clinical Informatics for the Healthcare Provider	
AHLT 3709	Elements of Urban Environmental Health Practices	
AHLT 3740	Pathology of Infectious Diseases	
AHLT 3755	Principles of Occupational Health and Safety	
AHLT 4801	Special Topics	
AHLT 4804	Stress and the Health Care Professional	
AHLT 4805	Health Education for Allied Health	
AHLT 4808	Environmental Health Concerns	
AHLT 4812	Advanced Cardiac Life Support (YSU Only)	
AHLT 4831	Industrial Hygiene	
AHLT 5816	Environmental Regulations	
Select 48 s.h. of 3700 or higher upper division courses.		
<b>Minor (Optional) or Electives</b>		
Select a minimum of 18 s.h. 18		
Total Degree Hours 120 sh		

Pre-admission counseling is required for students seeking entry to the BSAS in Allied Health. For greater detail on program content or admissions, students should contact the Department of Health Professions.

## Learning Outcomes

The student learning outcomes for the major in allied health are as follows:

- Students will conduct a quantitative, qualitative, or mixed method research project involving data collection and analysis.
- Students will utilize current technologies such as computer and online systems/services to access and communicate information.
- Students will be able to analyze health care-related issues.
- Students will demonstrate effective written and verbal communication skills.

## Bachelor of Science in Applied Science in Medical Laboratory Science

### Medical Laboratory Programs

Laboratory analysis plays an important role in the detection, diagnosis, and treatment of many diseases. Laboratory professionals perform a myriad of such tests to aid the physician in the management of disease.

For more information, contact Joan O'Connell-Spalla 330-941-1761  
joconnellspalla@ysu.edu

### MLS Internship Guidelines

Students should apply for Medical Laboratory Science Internship upon completion of the second year of the program or after completing approximately 60-65 semester hours. Application packets containing information on clinical affiliations and the application process are available from the program director or in the Department of Health Professions. Students should apply for graduation at the beginning of the junior year so their transcripts may be evaluated by an academic advisor in the Bitonte College of Health and Human Services. This application will help ensure that all of the requirements for internship and graduation have been fulfilled.

The University **does not** guarantee acceptance into the fourth year of hospital clinical internship. Selection and acceptance into a particular hospital program is based on that program's admission and selection process. Thus, students are selected by the hospital programs, which are very competitive. Students are urged to maintain a minimum 3.0 GPA, especially in all science and medical laboratory courses. To enhance their chances of acceptance into a medical internship, students are encouraged to apply to several accredited programs. A list of these programs is available through the program director. Students should notify the program director upon their acceptance by a professional program.

### Medical Laboratory Science (MLS-BSAS) Curriculum

The medical laboratory science program is a four-year program leading to a Bachelor of Science in Applied Science degree with a major in Medical Laboratory Science. Students in the program must have a physical examination and provide records of their immunizations, including the hepatitis B immunization series.

All course work in the MLS program must be completed with a minimum grade of "C". Students must maintain an overall GPA of 2.5 and a GPA of 2.5 in all MLS courses. Students receiving a total of 6 semester hours of "D" or "F" grades in MLS, biology or chemistry courses will be dismissed from the

program. Readmission to the program is based on GPA and on the availability of space in the class.

The program follows the "3+1" format with the student completing a pre-professional phase of courses in clinical laboratory technology, general chemistry, biological sciences, organic and biochemistry, microbiology, immunology, and mathematics during the first three years of the program. The final year of the program is completed at an accredited MLS hospital program. Upon successful program completion, graduates are qualified to take the certification examinations offered through ASCP and become certified as MLS (ASCP). Additionally, a MLT-to-MLS completion program is available.

Medical laboratory scientists perform hundreds of scientific procedures that have been devised to detect subtle changes that occur in disease. The MLS performs a full range of laboratory tests, ranging from complete blood counts, to more complex tests to uncover diseases such as leukemia, and diabetes. Studying blood cells under the microscope, the analysis of the chemical composition of blood, the isolation and identification of disease causing bacteria, and blood grouping and cross matching for transfusions are examples of the high complexity procedures performed by medical laboratory scientists. Positions are available as bench-level technologists, supervisors, and laboratory managers.

In addition to traditional laboratory careers, there are opportunities in education, research, and in industry as technical and sales representatives. In their quest to aid the physician and other health care providers, laboratory professionals do much more than look through a microscope. They operate complex analytical equipment, perform computations, and utilize precision instruments. Medical laboratory scientists act as an integral part of the health care team. Because of their academic and diverse clinical experience, graduates are well qualified for post-graduate programs in medicine, clinical chemistry, and biology.

## Advanced Placement Option -Medical Laboratory Science

The Advanced Placement Option in the Medical Laboratory Science program provides a pathway for ASCP certified Medical Laboratory Technicians (MLT) to become Medical Laboratory Scientists (MLS). The program is designed to meet the needs of the working medical laboratory technician so that they can pursue their degree while still employed as a laboratory professional and to address the growing local, regional and national shortage of medical laboratory scientists.

Applicants must meet the following criteria for acceptance into the program:

- Have graduated from a NAACLS accredited MLT/CLT program
- Have completed prerequisite course work in biology, chemistry, and mathematics and also meet Biology and Chemistry guidelines for eligibility for the ASCP MLS Certification examination.
- Be certified as a MLT(ASCP)
- Be employed in an accredited laboratory that is able to provide training in all required MLS disciplines.

Students may transfer courses from approved institutions with prior approval from the program director or department chairperson. Students may be granted experiential credit for a clinical course and, if so, will not be required to register for that course.

*The MLS Advanced Placement Option is accredited through the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS: 5600 N. River Rd. Suite 720 Rosemont, IL 60018-5119, Phone: 773.714.8880, www.naacls.org, info@naacls.org*

COURSE	TITLE	S.H.
<b>Writing</b>		
ENGL 1550	Writing 1	6
ENGL 1551	Writing 2	

<b>Speech</b>		3
CMST 1545	Communication Foundations	
<b>Mathematics</b>		4
STAT 2625	Stat Lit and Crit Reasoning	
Arts & Humanities (2 courses)		6
Social Sciences (2 courses)		6
Social & Personal Awareness (2 courses)		6
<b>General Education Elective</b>		2
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	
<b>Major Courses</b>		22
MLS 1501	Introduction to the Medical Laboratory Profession	
MLS 1501L	Introduction to the Medical Laboratory Profession Laboratory	
MLS 3700	Clinical Chemistry 2	
MLS 3700L	Clinical Chemistry 2 Laboratory	
MLS 3701 & 3701L	Clinical Hematology 1 and Clinical Hematology 1 Laboratory	
MLS 3702 & 3702L	Clinical Hematology 2 and Clinical Hematology 2 Laboratory	
MLS 3703	Clinical Immunology	
MLS 3703L	Clinical Immunology Laboratory	
MLS 3787	Diagnostic Microbiology	
MLS 3787L	Diagnostic Microbiology Laboratory	
<b>Internship Year</b>		37
MLS 4800	Advanced Clinical Chemistry	
MLS 4801	Advanced Hematology	
MLS 4802	Advanced Immunohematology	
MLS 4803	Advanced Microbiology	
MLS 4804	Miscellaneous Clinical Experience	
AHLT 4806	Research Methods	
<b>Biology Courses</b>		17
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	
<b>Chemistry Courses</b>		16
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	
<b>Total Semester Hours</b>		125
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
MLS 1501 & 1501L	Introduction to the Medical Laboratory Profession and Introduction to the Medical Laboratory Profession Laboratory	3

CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
ENGL 1550	Writing 1	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
ENGL 1551	Writing 2	3
General Education Requirement <sup>1</sup>		3
<b>Semester Hours</b>		<b>14</b>
<b>Year 2</b>		
<b>Fall</b>		
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	4
CMST 1545	Communication Foundations	3
STAT 2625	Stat Lit and Crit Reasoning	4
General Education Requirement <sup>1</sup>		3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
General Education Requirement <sup>1</sup>		3
General Education Requirement <sup>1</sup>		3
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
<b>Semester Hours</b>		<b>15</b>
<b>Summer</b>		
MLS 3701 & 3701L	Clinical Hematology 1 and Clinical Hematology 1 Laboratory	3
MLS 3700 & 3700L	Clinical Chemistry 2 and Clinical Chemistry 2 Laboratory	4
<b>Semester Hours</b>		<b>7</b>
<b>Year 3</b>		
<b>Fall</b>		
MLS 3702 & 3702L	Clinical Hematology 2 and Clinical Hematology 2 Laboratory	3
MLS 3787 & 3787L	Diagnostic Microbiology and Diagnostic Microbiology Laboratory	5
General Education Requirement <sup>1</sup>		3
<b>Semester Hours</b>		<b>11</b>
<b>Spring</b>		
MLS 3703 & 3703L	Clinical Immunology and Clinical Immunology Laboratory	4
General Education Requirement <sup>1</sup>		3
<b>Semester Hours</b>		<b>7</b>
<b>Summer</b>		
AHLT 4806	Research Methods	3

MLS 4804	Miscellaneous Clinical Experience	4
MLS 4804L	Miscellaneous Clinical Practice	2
<b>Semester Hours</b>		<b>9</b>
<b>Year 4</b>		
<b>Fall</b>		
MLS 4801	Advanced Hematology	4
MLS 4801L	Advanced Hematology Clinical Practice	3
MLS 4802	Advanced Immunohematology	4
MLS 4802L	Advanced Immunohematology Clinical Practice	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
MLS 4803	Advanced Microbiology	5
MLS 4803L	Advanced Microbiology Clinical Practice	3
MLS 4800	Advanced Clinical Chemistry	4
MLS 4800L	Advanced Clinical Chemistry Clinical Experience	2
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>125</b>

<sup>1</sup> General education courses must fulfill the requirements for the baccalaureate degree. Students must take two courses from Arts & Humanities, two courses from Social Science, and two courses from Social and Personal Awareness.

## Learning Outcomes

The student learning outcomes for the medical laboratory programs (MLS-BSAS and MLT-AAS) are as follows:

- Graduates will be prepared to function as entry-level health care professionals in the medical laboratory as medical laboratory technicians and medical laboratory scientists. At entry level, the medical laboratory graduate will be able to demonstrate the ability to comprehend, apply and evaluate information relative to the medical laboratory profession.
- These learning outcomes include comprehension of the theory and the ability to apply and evaluate the didactics of hematology, clinical chemistry, immunohematology, microbiology, immunology, coagulation, molecular diagnostics, and other emerging diagnostics.
- Graduates will be prepared to function as entry-level health care professionals in the medical laboratory as medical laboratory technicians and medical laboratory scientists. Upon completion of the program, graduates will demonstrate technical proficiency in laboratory applications.
- These psychomotor learning outcomes include the performance of laboratory procedures in hematology, clinical chemistry, immunohematology, microbiology, immunology, coagulation, molecular diagnostics, and other emerging diagnostics. The graduate will demonstrate proficiency in the functions of all phases of laboratory analysis (pre-analytical, analytical, and post-analytical processes).
- Graduates will demonstrate professional conduct and interpersonal communication skills consistent with the medical laboratory profession.
- Students will exhibit the ability to think critically across all 3700-level courses through the application of fundamental didactic and psychomotor skills to assess the medical relevance and significance of specific aspects of laboratory testing.

## Bachelor of Science in Applied Science in Medical Laboratory Science Advanced Placement Option



COURSE	TITLE	S.H.
<b>Writing</b>		
ENGL 1550	Writing 1	6
ENGL 1551	Writing 2	6
<b>Speech</b>		
CMST 1545	Communication Foundations	3
<b>Math/Statistics</b>		
STAT 2625	Stat Lit and Crit Reasoning	6
STAT 2601	Introductory Statistics	6
<b>Arts &amp; Humanities (2 courses)</b>		
<b>Social Sciences (2 courses)</b>		
<b>SPA (2 courses)</b>		
<b>Intro to Online</b>		
AHLT 1500	Introduction to Online Learning in Health Professions	3
<b>Major Courses</b>		
MLS 4800	Advanced Clinical Chemistry	4
MLS 4800L	Advanced Clinical Chemistry Clinical Experience	2
MLS 4801	Advanced Hematology	4
MLS 4801L	Advanced Hematology Clinical Practice	3
MLS 4802	Advanced Immunohematology	4
MLS 4802L	Advanced Immunohematology Clinical Practice	3
MLS 4803	Advanced Microbiology	5
MLS 4803L	Advanced Microbiology Clinical Practice	3
MLS 4804	Miscellaneous Clinical Experience	4
MLS 4804L	Miscellaneous Clinical Practice	2
<b>Science Requirements</b>		
Biology (Must include A&P, Micro, Immunology)		16
Chemistry (Must include Organic or Biochemistry)		16

There are five standard areas in public health training that enable students to perform the essential services of public health. These are :

- epidemiology
- biostatistics
- health services administration
- environmental health
- behavioral science/health education

The curriculum for the YSU bachelor's degree in public health addresses each of the five core areas through multiple courses. This curriculum enables mastery at the bachelor's level of the nationally recognized Public Health Core Competencies, and requires an internship tailored to the area of public health interests of each student. All of the major courses for the degree can be completed through online distance learning options.

The BSAS in public health can also prepare the student to become a Certified Health Education Specialist (CHES) or be eligible to take the sanitarian examination. CHES assesses:

- individual and community health needs
- the ability to plan and implement effective health education and health promotion programs
- the ability to coordinate and manage the provision of health education and promotion services
- the ability to effectively communicate health and health education needs, concerns, and resources
- the ability to conduct program evaluation

The environmental health and safety track prepares students to be sanitarians/sanitarians-in-training. Sanitarians promote public health by conducting environmental health inspections and related activities for settings such as food service establishments (restaurants), children's camps, hotels, long-term and adult care facilities, and diagnostic and treatment centers.

Public health professionals work in multiple settings:

- public
- non-profit
- academic
- private
- governmental

For more information visit the **Public Health Program** (<http://www.ysu.edu/academics/bitonte-college-health-and-human-services/online-public-health-major>).

During the freshman and sophomore years, students are expected to take the courses that meet the requirements for general education. In addition to the English, mathematics, and communication requirement, specific general education courses for the BSAS public health degree include:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
<b>Core Competencies</b>		<b>12</b>
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
<b>Arts and Humanities</b>		<b>6</b>
PHIL 1560	Introduction to Philosophy (or)	3
<b>OR</b>		
PHIL 2625	Introduction to Professional Ethics	3
<b>Natural Sciences</b>		<b>6</b>
BIOL 2601	General Biology: Molecules and Cells	4

## Bachelor of Science in Applied Science in Public Health, Environmental Health Track

### Public Health

The public health program offers the Bachelor of Science in Applied Science (BSAS) degree and can be completed in eight semesters if students average 16 hours per semester. The program has two tracks:

- Health Education/Health Promotion
- Environmental Health and Safety

The program offers a minor in public health and community health planning and evaluation. The program offers minors in:

- Public health
- Community Health Planning and Evaluation
- Environmental Health and Safety

The program contributes to the University's general education requirements by offering PHLT 1500 Introduction to Online Learning in Health Professions, PHLT 1513 Introduction to Environmental Health and Safety, PHLT 1531 Fundamentals of Public Health, and PHLT 1568 Healthy Lifestyles, which meet the general education requirements for First Year Experience, Social and Personal Awareness, Social Sciences/Social and Personal Awareness and Social and Personal Awareness, respectively. To be admitted to the public health program, a student must have a minimum GPA of 2.0. To continue enrollment in the major, students must maintain a 2.0 GPA. If a student falls below a 2.0 GPA, he or she can only reapply to the major after a minimum GPA of 2.0 has been achieved.

BIOL 2601L	General Biology: Molecules and Cells Laboratory	0
GEOL 1500	Environmental Geology	4
Social Science		6
SOC 1500	Introduction to Sociology	3
Social and Personal Awareness		6
PHLT 1568	Healthy Lifestyles	3
AND		
PHLT 1531	Fundamentals of Public Health	3
General Education Elective / First-Year Experience		3
PHLT 1500	Introduction to Online Learning in Health Professions	3
<b>Major Requirements</b>		
PHLT 1513	Introduction to Environmental Health and Safety	3
BIOL 1545	Allied Health Anatomy and Physiology	5
AND		
BIOL 1545L	Allied Health Anatomy and Physiology Laboratory	0
<b>Core Requirements</b>		
PHLT 2607	Ethical Issues in Public Health	3
PHLT 3702	Health Education Theory and Methods	3
PHLT 3709	Elements of Urban Environmental Health Practices	3
PHLT 3725	Topics in Public Health	3
PHLT 3757	Health and Disease	4
PHLT 3791	Community Health	3
PHLT 4826	Community Health Planning and Promotion	4
PHLT 4827	Evaluation of Health Promotion Programs	3
PHLT 4828	Grant Writing	3
PHLT 4892	Environmental Health and Safety Internship	8
PHLT 4898	Environmental Health and Safety Senior Seminar	3
PHLT 5804	Multicultural Health	3
PHLT 5810	Agents of Mass Casualty	3
PHLT 5812	Crisis Management in Public Health	3
AHLT 3708	Preventive Public Health Care	3
AHLT 3740	Pathology of Infectious Diseases	3
AHLT 3755	Principles of Occupational Health and Safety	3
AHLT 4806	Research Methods	3
AHLT 4808	Environmental Health Concerns	3
AHLT 4810	Management Skills for Health Professionals	3
AHLT 4820	Directed Research	3
AHLT 4831	Industrial Hygiene	3
AHLT 5816	Environmental Regulations	3
AHLT 5807	Epidemiology	3
Total Degree Hours		122 sh

A total of 122 semester hours are required for the BSAS in public health. No minor is required for this professional BSAS degree.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
PHLT 1531	Fundamentals of Public Health	3
PHLT 1568	Healthy Lifestyles	3
PHLT 1513	Introduction to Environmental Health and Safety	3
ENGL 1550	Writing 1	3
PHLT 1500	Introduction to Online Learning in Health Professions	3
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
MATH 2623	Quantitative Reasoning	3
PHLT 3791	Community Health	3
AHLT 3708	Preventive Public Health Care	3
ENGL 1551	Writing 2	3
BIOL 1545	Allied Health Anatomy and Physiology	5
AND		
BIOL 1545L	Allied Health Anatomy and Physiology Laboratory	0
<b>Semester Hours</b>		<b>17</b>

<b>Year 2</b>		
<b>Fall</b>		
AHLT 5807	Epidemiology	3
PHLT 3702	Health Education Theory and Methods	3
PHLT 3709	Elements of Urban Environmental Health Practices	3
BIOL 2601	General Biology: Molecules and Cells	4
AND		
BIOL 2601L	General Biology: Molecules and Cells Laboratory	0
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
PHLT 3725	Topics in Public Health	3
PHLT 3757	Health and Disease	4
AHLT 4808	Environmental Health Concerns	3
PHLT 5812	Crisis Management in Public Health	3
PHIL 1560	Introduction to Philosophy	3
or PHIL 2625	or Introduction to Professional Ethics	
<b>Semester Hours</b>		<b>16</b>

<b>Year 3</b>		
<b>Fall</b>		
AHLT 4831	Industrial Hygiene	3
PHLT 4826	Community Health Planning and Promotion	4
AHLT 4806	Research Methods	3
PHLT 2607	Ethical Issues in Public Health	3
SOC 1500	Introduction to Sociology	3
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
PHLT 4827	Evaluation of Health Promotion Programs	3
PHLT 4828	Grant Writing	3
AHLT 3740	Pathology of Infectious Diseases	3
Arts and Humanities		3
PHLT 5804	Multicultural Health	3
<b>Semester Hours</b>		<b>15</b>

<b>Year 4</b>		
<b>Fall</b>		
AHLT 5816	Environmental Regulations	3
AHLT 3755	Principles of Occupational Health and Safety	3
AHLT 4810	Management Skills for Health Professionals	3
PHLT 5810	Agents of Mass Casualty	3
<b>Semester Hours</b>		<b>12</b>

<b>Spring</b>		
GEOL 1500 & 1500L	Environmental Geology and Environmental Geology Laboratory	4
PHLT 4892	Environmental Health and Safety Internship	8

PHLT 4898	Environmental Health and Safety Senior Seminar	3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>122</b>

- **The following development courses do not count toward degree requirements:**

COURSE	TITLE	S.H.
ENGL 1539	Fundamentals of College Writing	4
ENGL 1540	Introduction to College Writing	3
RSS 1510A	Advanced College Success Skills	3
RSS 1510B	Basic College Success Skills	3
MATH 1501	Elementary Algebraic Models	5

- **No minor is required for this major.**
- **To continue enrollment in the major, a GPA of 2.0 must be maintained.**
- **Courses in the major require a grade of "C" or better.**
- **Courses taken under the Credit(CR)/No Credit (NC) option may not be counted toward the major. You must confer with Dr. Robinson prior to electing this option. (Refer to the Undergraduate Bulletin for more information.)**

## Learning Outcomes

The student learning outcomes for public health are as follows:

- The public health student will demonstrate skill in competence in core Public Health content including program planning and evaluation, program implementation, coordination of effective communication, use of resources, environmental health and safety, and cultural competence by achieving a score of at least 85% on a program comprehensive exam taken as part of PHLT 4898 Environmental Health and Safety Senior Seminar or PHLT 4899 Public Health Senior Seminar courses.
- The public health student will demonstrate mastery of entry-level Public Health competency by receiving an internship score of at least 85% by his/her public health/environmental health internship supervisor.

# Bachelor of Science in Applied Science in Public Health, Health Promotion/Health Protection Track

## Public Health

The public health program offers the Bachelor of Science in Applied Science (BSAS) degree and can be completed in eight semesters if students average 16 hours per semester. The program has two tracks:

- Health Education/Health Promotion
- Environmental Health and Safety

The program offers a minor in public health and community health planning and evaluation. The program offers minors in:

- public health
- community health planning and evaluation
- environmental health and safety

The program contributes to the University's general education requirements by offering PHLT 1500 Introduction to Online Learning in Health Professions, PHLT 1513 Introduction to Environmental Health and Safety, PHLT 1531 Fundamentals of Public Health, and PHLT 1568 Healthy Lifestyles, which meet the general education requirements for First Year Experience, Social and Personal Awareness, Social Sciences/Social and Personal Awareness and Social and Personal Awareness, respectively. To be admitted to the public

health program, a student must have a minimum GPA of 2.0. To continue enrollment in the major, students must maintain a 2.0 GPA. If a student falls below a 2.0 GPA, he or she can only reapply to the major after a minimum GPA of 2.0 has been achieved.

There are five standard areas in public health training that enable students to perform the essential services of public health. These are :

- epidemiology
- biostatistics
- health services administration
- environmental health
- behavioral science/health education

The curriculum for the YSU bachelor's degree in public health addresses each of the five core areas through multiple courses. This curriculum enables mastery at the bachelor's level of the nationally recognized Public Health Core Competencies, and requires an internship tailored to the area of public health interests of each student. All of the major courses for the degree can be completed through online distance learning options.

The BSAS in public health can also prepare the student to become a Certified Health Education Specialist (CHES). CHES assess:

- individual and community health needs
- the ability to plan and implement effective health education and health promotion programs
- the ability to coordinate and manage the provision of health education and promotion services
- the ability to effectively communicate health and health education needs, concerns, and resources
- the ability to conduct program evaluation

Public health professionals work in multiple settings: public health agencies, non-profit organizations, academic, private, and other health care settings.

For more information, visit the **Public Health Program** (<http://catalog.yzu.edu/undergraduate/colleges-programs/college-health-human-services/department-health-professions/public-health-health-education-health-protection-track>).

During the freshman and sophomore years, students are expected to take the courses that meet the requirements for general education. In addition to the English, mathematics, and communication requirement, specific general education courses for the BSAS public health degree include:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
MATH 2623	Quantitative Reasoning	3
Arts and Humanities		6
PHIL 1560	Introduction to Philosophy	3
OR		
PHIL 2625	Introduction to Professional Ethics	3
Natural Sciences		6
BIOL 1545	Allied Health Anatomy and Physiology	5
AND		
BIOL 1545L	Allied Health Anatomy and Physiology Laboratory	0
Social Science		6
SOC 1500	Introduction to Sociology	3
Social and Personal Awareness		6

PHLT 1531	Fundamentals of Public Health	3
<b>AND</b>		
PHLT 1568	Healthy Lifestyles	3
General Education Elective / First-Year Experience 3		
PHLT 1500	Introduction to Online Learning in Health Professions	3
<b>Major Requirements</b>		
3		
FNUT 1551	Normal Nutrition	3
3		
PHLT 2607	Ethical Issues in Public Health	3
PHLT 2692	Human Sexuality	3
PHLT 3702	Health Education Theory and Methods	3
PHLT 3709	Elements of Urban Environmental Health Practices	3
PHLT 3725	Topics in Public Health	3
PHLT 3731	Drug Use and Abuse	3
PHLT 3757	Health and Disease	4
PHLT 3791	Community Health	3
PHLT 4826	Community Health Planning and Promotion	4
PHLT 4827	Evaluation of Health Promotion Programs	3
PHLT 4828	Grant Writing	3
PHLT 4891	Public Health Internship	8
PHLT 4899	Public Health Senior Seminar	3
PHLT 5804	Multicultural Health	3
PHLT 5810	Agents of Mass Casualty	3
PHLT 5812	Crisis Management in Public Health	3
AHLT 3708	Preventive Public Health Care	3
AHLT 3740	Pathology of Infectious Diseases	3
AHLT 4806	Research Methods	3
AHLT 4808	Environmental Health Concerns	3
AHLT 4810	Management Skills for Health Professionals	3
AHLT 5807	Epidemiology	3
Total Degree 120 sh		

A total of 120 semester hours are required for the BSAS in public health. No minor is required for this professional BSAS degree.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
PHLT 1531	Fundamentals of Public Health	3
PHLT 1568	Healthy Lifestyles	3
ENGL 1550	Writing 1	3
CMST 1545	Communication Foundations	3
PHLT 1500	Introduction to Online Learning in Health Professions	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
AHLT 3708	Preventive Public Health Care	3
MATH 2623	Quantitative Reasoning	3
ENGL 1551	Writing 2	3
PHIL 1560 or PHIL 2625	Introduction to Philosophy or Introduction to Professional Ethics	3
PHLT 1513	Introduction to Environmental Health and Safety	3
<b>Semester Hours</b>		<b>15</b>

<b>Year 2</b>		
<b>Fall</b>		
PHLT 2692	Human Sexuality	3
PHLT 3702	Health Education Theory and Methods	3
PHLT 3709	Elements of Urban Environmental Health Practices	3
PHLT 3725	Topics in Public Health	3
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
<b>Semester Hours</b>		<b>17</b>

<b>Spring</b>		
PHLT 3757	Health and Disease	4
PHLT 3791	Community Health	3
PHLT 5812	Crisis Management in Public Health	3
AHLT 5807	Epidemiology	3
FNUT 1551	Normal Nutrition	3
<b>Semester Hours</b>		<b>16</b>

<b>Year 3</b>		
<b>Fall</b>		
PHLT 3731	Drug Use and Abuse	3
PHLT 4826	Community Health Planning and Promotion	4
AHLT 4806	Research Methods	3
Natural Science		3
Arts and Humanities		3
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
PHLT 4827	Evaluation of Health Promotion Programs	3
PHLT 4828	Grant Writing	3
AHLT 3740	Pathology of Infectious Diseases	3
AHLT 4808	Environmental Health Concerns	3
SOC 1500	Introduction to Sociology	3
<b>Semester Hours</b>		<b>15</b>

<b>Year 4</b>		
<b>Fall</b>		
PHLT 5810	Agents of Mass Casualty	3
PHLT 2607	Ethical Issues in Public Health	3
AHLT 4810	Management Skills for Health Professionals	3
General Education Elective (NS, AH, SS or SPA)		3
<b>Semester Hours</b>		<b>12</b>

<b>Spring</b>		
PHLT 4891	Public Health Internship	8
PHLT 4899	Public Health Senior Seminar	3
PHLT 5804	Multicultural Health	3
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>120</b>

• The following development courses do not count toward degree requirements:

COURSE	TITLE	S.H.
ENGL 1539	Fundamentals of College Writing	4
ENGL 1540	Introduction to College Writing	3
RSS 1510A	Advanced College Success Skills	3
RSS 1510B	Basic College Success Skills	3
MATH 1501	Elementary Algebraic Models	5
MATH 1505	Intermediate Algebra with Applications	5
MATH 1507	Intermediate Algebra	3

- **No minor is required for this major.**
- **To continue enrollment in the major, a GPA of 2.0 must be maintained.**
- **Courses in the major require a grade of “C” or better.**
- **Courses taken under the Credit(CR)/No Credit (NC) option may not be counted toward the major. You must confer with Dr. Robinson prior to electing this option. (Refer to the Undergraduate Bulletin for more information.)**

## Learning Outcomes

The student learning outcomes for public health are as follows:

- The public health student will demonstrate skill in competence in core Public Health content including program planning and evaluation, program implementation, coordination of effective communication, use of resources, environmental health and safety, and cultural competence by achieving a score of at least 85% on a program comprehensive exam taken as part of PHLT 4898 Environmental Health and Safety Senior Seminar or PHLT 4899 Public Health Senior Seminar courses.
- The public health student will demonstrate mastery of entry-level Public Health competency by receiving an internship score of at least 85% by his/her public health/environmental health internship supervisor.

## Bachelor of Science in Dental Hygiene

(330) 941-3342

The Bachelor of Science in Dental Hygiene (BSDH) degree requires nine semesters of study including three semesters of coursework in the basic sciences and general education, which precede admission into the program. In the spring semester of the second year, students will begin taking the dental hygiene courses. The program is designed to prepare students as clinical dental hygienists and to pursue other possible career options such as education, public health, and research. Prospective students complete educational requirements that provide a broad academic background while attaining comprehensive dental hygiene knowledge and clinical experience.

At the end of the fourth year of the program, students are eligible to take state, regional and national board examinations. Upon successful completion of these comprehensive written and clinical examinations, the student may apply for a license to practice dental hygiene in the state as a registered dental hygienist.

The registered dental hygienist is a licensed professional who provides dental hygiene treatment and related preventive services. Clinical skills of the hygienist include:

- the administration of local anesthesia and nitrous oxide
- recording medical and dental histories
- exposing and interpreting radiographs
- making study models
- performing extra-oral and intra-oral examinations which include cancer screenings; dietary management; preliminary dental charting and periodontal evaluations
- scaling and root planing
- polishing
- patient education
- placing sealants
- administering fluoride therapy

Many states permit the hygienist to perform additional duties such as placing temporary restorative materials.

The dental hygienist also functions as a dental health educator and is responsible for the preventive dental health program in private dental practices

as well as in other settings. The hygienist teaches patients proper oral health care in order to reduce oral diseases and disorders.

The hygienist's role in service to the community may include increasing public awareness of dental health, serving as a resource person to school systems, providing screenings to children or various groups, and making visits to nursing homes, hospitals and/or schools for the mentally or physically handicapped.

## Accreditation

The dental hygiene program is accredited by the American Dental Association Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education.

The Commission on Dental Accreditation  
211 East Chicago Avenue  
Chicago, IL 60611  
(312) 440-2500  
<http://www.ada.org/en/home-ada/coda>

## Admission to the Program

Admission to the University provides students with the opportunity to complete a core of pre-dental hygiene courses. All students must complete and/or be registered for all of the pre-dental hygiene courses (the first year fall semester, the first year spring semester, and the second year fall semester) after which they may apply and compete for a position in the Bachelor of Science in Dental Hygiene program. *Please note that due to limited clinical capacity and available resources, admission to the university and completion of the pre-dental hygiene courses does not guarantee admission to the program.* The courses in **BOLD** on the Admission Policy document will be used in the calculation of the student's pre-dental hygiene GPA which will be used in ranking students.

Admitted students who voluntarily withdraw from the Dental Hygiene Program will be allowed to reapply only one additional time. This is enforced in fairness to other applicants.

A criminal background check which includes fingerprinting for the Ohio Bureau of Criminal Identification and Investigation (BCI & I) and the Federal Bureau of Investigation (FBI) is required for licensure in Ohio. If a student has been convicted of a felony or misdemeanor related to substance abuse or a crime involving moral turpitude, licensure may be denied by the Ohio State Dental Board. For further information regarding licensure and the results of fingerprinting call the Ohio State Dental Board at (614) 466-2580.

Students can access u.select at Transferology (<https://www.transferology.com>), a free web-based source where they can find accurate information regarding courses that transfer and apply to a degree program.

Prospective students must complete a minimum of 12 hours of observation of a registered dental hygienist in two separate dental offices or clinics. Observation forms are available on the Dental Hygiene website. Each prospective student must print the form, fill it out and return it by September 15 of the year of application. Mail with appropriate signatures to:

Youngstown State University  
Dental Hygiene Program  
One University Plaza  
Youngstown, OH 44555.

## New, Current, Former, and Transfer Students

Students must apply and compete for conditional acceptance into the dental hygiene program by September 15 for spring semester admittance. Rankings for admission will include a minimum GPA of 2.70, in the bolded courses (see

Admissions Policy) and a cumulative grade point average of 2.5 or greater. ALL pre-dental hygiene courses must be completed with a "C" or better at the end of the fall semester of the second year (as outlined below).

For more information, visit the **Department of Dental Hygiene** (<http://www.yzu.edu/academics/bitonte-college-health-and-human-services/dental-hygiene-major>).

## Pre-Dental Hygiene Courses

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	3
<b>Semester Hours</b>		<b>13</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
CHEM 1506 & 1506L	Allied Health Chemistry 2 and Allied Health Chemistry 2 Laboratory	3
PSYC 1560	General Psychology	3
MATH 2623 or STAT 2625	Quantitative Reasoning or Stat Lit and Crit Reasoning	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
BIOL 1560	Microbiology for the Health Professions	2
MLT 2687L or BIOL 1560L	Microbiology for Health Care Laboratory or Microbiology Laboratory for Health Professions	1
PHIL 2625	Introduction to Professional Ethics	3
SOC 1500	Introduction to Sociology	3
Arts and Humanities		3
Social and Personal Awareness Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>43</b>

## Current Students

Current students must apply by September 15 for spring semester admittance. Application packets are in the Dean's office, Bitonte College of Health and Human Services, Cushwa Hall, Room 2104. All necessary reports and transcripts must be received by September 15. No applications will be considered after this deadline.

## New, Transfer, and Former YSU Students

New, transfer, and former YSU students must first apply and be admitted to the University by completing the undergraduate admissions form and indicating dental hygiene as the intended major.

Submit transcripts from each of the post secondary institutions and high school(s) attended. Transcripts of any academic work being completed during the academic year of the requested admission date must be submitted to YSU Admissions Office by September 15. No applications will be considered after this deadline.

## Observation Requirement

All prospective students must complete a minimum of 12 hours of observation of a registered dental hygienist in at least two separate dental offices or dental clinics. Students must dress appropriately. Do not wear shorts, jeans, tennis shoes, flip-flops or other unprofessional clothing. Hair must be pulled away from the face, and make-up and perfume should be moderately applied. Observation forms are available on the dental hygiene (<http://www.yzu.edu/academics/bitonte-college-health-and-human-services/dental-hygiene-major>) website. Each prospective student must print the form and fill it out. The forms with the appropriate signatures must be mailed to:

Youngstown State University  
Dental Hygiene Program  
One University Plaza  
Youngstown, OH 44555

### Factors affecting admission will include:

1. Pre-Dental Hygiene G.P.A.
2. Cumulative G.P.A.
3. All Pre-Dental Hygiene courses completed with a "C" or better by the end of the fall semester.
4. Number of repetitions of **BOLD** pre-dental hygiene courses (as indicated in Section A).
5. As the number of repetitions increases, the likelihood of being admitted decreases. Applicants will have within the last five years, no more than two repeated classes in all the pre-dental hygiene courses. A repeated course must be completed with a grade of "C" or better and all incompletes must be removed before beginning the dental hygiene curriculum.
6. Satisfactory completion of the dental hygiene observation forms.

Upon receiving admission to the Dental Hygiene Program, and as a condition of admission, students must show satisfactory evidence of the following:

1. Current CPR/BLS certification
2. Completed physical and dental exam
3. Proof of required immunization requirements

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
<b>Core Competencies</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
<b>Mathematics Requirement</b>		
MATH 2623 or STAT 2625	Quantitative Reasoning or Stat Lit and Crit Reasoning	3-4
<b>Arts and Humanities</b>		
PHIL 2625	Introduction to Professional Ethics	
Arts and Humanities Elective		
Natural Sciences		11
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	
CHEM 1506 & 1506L	Allied Health Chemistry 2 and Allied Health Chemistry 2 Laboratory	
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	
Required Support Courses		3
BIOL 1560	Microbiology for the Health Professions	
BIOL 1560L or MLT 2687L	Microbiology Laboratory for Health Professions or Microbiology for Health Care Laboratory	
Social Science		6

PSYC 1560	General Psychology	
SOC 1500	Introduction to Sociology	
Social and Personal Awareness		6
Social and Personal Awareness		
Social and Personal Awareness		
First Year Experience		2
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	

**Major Requirements**

DHYG 2601	Dental Hygiene 1	3
DHYG 2601L	Clinical Dental Hygiene 1	2
DHYG 2620	Head and Neck Anatomy	2
DHYG 2620L	Head and Neck Anatomy Lab	1
DHYG 2630	Management of Medical/Dental Emergencies	2
DHYG 2602	Dental Hygiene 2	2
DHYG 2602L	Clinical Dental Hygiene 2	2
DHYG 2640	Oral Histology	2
DHYG 3703	Dental Hygiene 3	3
DHYG 3703L	Clinical Dental Hygiene 3	3
DHYG 3750	Oral Pathology	2
DHYG 3760	Dental Radiology	3
DHYG 3760L	Dental Radiology Lab	1
DHYG 3770	Periodontology	3
AHLT 4805	Health Education for Allied Health	3
DHYG 3704	Dental Hygiene 4	3
DHYG 3704L	Clinical Dental Hygiene 4	3
DHYG 3780	Pharmacology	2
DHYG 3790	Local Anesthesia and Pain Control for Dental Hygienists	2
DHYG 3790L	Local Anesthesia and Pain Control Clinic	1
AHLT 4806	Research Methods	3
DHYG 4805	Dental Hygiene 5	3
DHYG 4805L	Clinical Dental Hygiene 5	4
DHYG 4830	Dental Materials	1
DHYG 4830L	Dental Materials Lab	1
DHYG 4840	Directed Dental Hygiene Research	3
DHYG 4845	Expanded Functions for the Dental Hygienist	3
DHYG 4845L	Expanded Functions for the Dental Hygienist Lab	1
DHYG 4806	Dental Hygiene 6	2
DHYG 4806L	Clinical Dental Hygiene 6	4
DHYG 4850	Dental Public Health	3
DHYG 4850L	Community Clinicals	1
DHYG 4860	Ethics and Practice Concepts	2
DHYG 4855L	Expanded Functions Clinical	2

**Total Semester Hours** 124-128

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	3
<b>Semester Hours</b>		<b>13</b>

**Spring**

ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
CHEM 1506 & 1506L	Allied Health Chemistry 2 and Allied Health Chemistry 2 Laboratory	3
PSYC 1560	General Psychology	3
MATH 2623 or STAT 2625	Quantitative Reasoning or Stat Lit and Crit Reasoning	3-4

**Semester Hours****15-16****Year 2****Fall**

BIOL 1560	Microbiology for the Health Professions	2
BIOL 1560L or MLT 2687L	Microbiology Laboratory for Health Professions or Microbiology for Health Care Laboratory	1
PHIL 2625	Introduction to Professional Ethics	3
SOC 1500	Introduction to Sociology	3
Arts and Humanities		3
Social and Personal Awareness Elective		3

**Semester Hours****15****Spring**

DHYG 2601	Dental Hygiene 1	3
DHYG 2601L	Clinical Dental Hygiene 1	2
DHYG 2620	Head and Neck Anatomy	2
DHYG 2620L	Head and Neck Anatomy Lab	1
DHYG 2630	Management of Medical/Dental Emergencies	2
Social and Personal Awareness Elective		3

**Semester Hours****13****Summer**

DHYG 2602	Dental Hygiene 2	2
DHYG 2602L	Clinical Dental Hygiene 2	2
DHYG 2640	Oral Histology	2

**Semester Hours****6****Year 3****Fall**

DHYG 3703	Dental Hygiene 3	3
DHYG 3703L	Clinical Dental Hygiene 3	3
DHYG 3750	Oral Pathology	2
DHYG 3760	Dental Radiology	3
DHYG 3760L	Dental Radiology Lab	1
DHYG 3770	Periodontology	3
AHLT 4805	Health Education for Allied Health	3

**Semester Hours****18****Spring**

DHYG 3704	Dental Hygiene 4	3
DHYG 3704L	Clinical Dental Hygiene 4	3
DHYG 3780	Pharmacology	2
DHYG 3790	Local Anesthesia and Pain Control for Dental Hygienists	2
DHYG 3790L	Local Anesthesia and Pain Control Clinic	1
AHLT 4806	Research Methods	3

**Semester Hours****14****Year 4****Fall**

DHYG 4805	Dental Hygiene 5	3
DHYG 4805L	Clinical Dental Hygiene 5	4
DHYG 4830	Dental Materials	1

DHYG 4830L	Dental Materials Lab	1
DHYG 4840	Directed Dental Hygiene Research	3
DHYG 4845	Expanded Functions for the Dental Hygienist	3
DHYG 4845L	Expanded Functions for the Dental Hygienist Lab	1
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
DHYG 4806	Dental Hygiene 6	2
DHYG 4806L	Clinical Dental Hygiene 6	4
DHYG 4850	Dental Public Health	3
DHYG 4850L	Community Clinicals	1
DHYG 4860	Ethics and Practice Concepts	2
DHYG 4855L	Expanded Functions Clinical	2
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>124-125</b>

## Learning Outcomes

The student learning outcomes for the dental hygiene program are as follows:

- The graduates will recognize and apply legal, ethical and regulatory concepts in the practice of dental hygiene.
- The graduates will demonstrate competency in performing the clinical skills to achieve and maintain the oral health of their patients.
- The students will develop and conduct research that includes data collection, statistical analysis, and dissemination of results.

## Bachelor of Science in Respiratory Care in Respiratory Care

Respiratory Care Program Director:

Mary Yacovone

mlyacovone@ysu.edu

(330) 941-1764

Respiratory care is an allied health profession concerned with the diagnostic evaluation, treatment, and management of patients with cardiopulmonary disorders. The respiratory care practitioner (RCP) is proficient in:

- therapeutic administration of medical gases and aerosols
- intermittent and continuous mechanical ventilation
- broncho-pulmonary hygiene
- basic and advanced cardiac life support techniques
- non-invasive patient monitoring
- pulmonary function evaluation
- arterial blood gas analysis
- airway management procedures
- pulmonary rehabilitation techniques

A licensed RCP must also be knowledgeable regarding various assessment techniques and patient education models. These skills are used with neonatal, pediatric, and adult patients in acute, sub acute, and home care settings. To function effectively as a member of the multidisciplinary health care team, the RCP must have a sound understanding of:

- the physiological, psychological, and cultural needs of the patient
- the role of the various therapeutic interventions in the patient care plan
- development of broad-based skills to more effectively contribute to the overall care of the patient

Theory and laboratory experiences are provided prior to the student's entry into the clinical education phase of the program. This program can be completed in four calendar years. It includes three summer sessions. A sleep diagnostics option is also available. Please visit Respiratory Care (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-health-human-services/departments-health-professions/bs-respiratory-care>) for more information.

## Accreditation

The Bachelor of Science in Respiratory Care (CoARC #200247) and Polysomnography Certificate (CoARC #400247) at Youngstown State University, Youngstown, Ohio are accredited by the Commission on Accreditation for Respiratory Care (CoARC). To view the CoARC outcomes please visit CoARC Outcomes Data. CoARC Outcomes Data

Commission on Accreditation for Respiratory Care (CoARC)

1248 Harwood Road

Bedford TX 76021-4244

(817) 283-2835

[www.coarc.com](http://www.coarc.com)

The goals of the Bachelor of Science in Respiratory Care are:

- To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs).
- To prepare leaders for the field of respiratory care by including curricular content that includes objectives related to acquisition of skills one or more of the following: management, education, research, and advanced clinical practice.

The goal of the Polysomnography Certificate is:

- To prepare sleep disorder specialists with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of polysomnography practice as performed by sleep disorder specialists (SDS).

## Bachelor of Science Respiratory Care (BSRC) Curriculum

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
BIOL 1545	Allied Health Anatomy and Physiology	5
MATC 1501	Medical Terminology	3
MATH 2623	Quantitative Reasoning	3
ENGL 1550	Writing 1	3
CHEM 1505	Allied Health Chemistry 1	3
<b>AND</b>		
CHEM 1505L	Allied Health Chemistry 1 Laboratory	0
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
CHEM 1506	Allied Health Chemistry 2	3
<b>AND</b>		
CHEM 1506L	Allied Health Chemistry 2 Laboratory	0
CMST 1545	Communication Foundations	3
ENGL 1551	Writing 2	3
SOC 1500	Introduction to Sociology	3
PHLT 1568	Healthy Lifestyles	3
or PHLT 1531	or Fundamentals of Public Health	



HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>17</b>
<b>Year 2</b>		
<b>Fall</b>		
RESC 1529	Respiratory Care Orientation	2
RESC 1531	Respiratory Care Essentials	3
MATC 2605	Introduction to Pharmacology	3
BIOL 1560	Microbiology for the Health Professions	2
MLT 2687L	Microbiology for Health Care Laboratory	1
PHIL 2625	Introduction to Professional Ethics	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
RESC 1503	Respiratory Procedures 1	4
RESC 1520	Respiratory Care Assessment 1	3
PSYC 1560	General Psychology	3
AHLT 3705	Pharmacotherapeutics	3
<b>Semester Hours</b>		<b>13</b>
<b>Summer</b>		
RESC 2620	Respiratory Assessment 2	3
RESC 2621	Cardiopulmonary Disease	4
<b>Semester Hours</b>		<b>7</b>
<b>Year 3</b>		
<b>Fall</b>		
RESC 3706	Respiratory Procedures 2	3
RESC 3720	Mechanical Ventilation 1	3
AHLT 4806	Research Methods	3
AHLT 5840	Comparative Health Systems	3
<b>Semester Hours</b>		<b>12</b>
<b>Spring</b>		
RESC 2699	Clinical Practice 1	1
RESC 3708	Respiratory Clinical Specialties	3
RESC 3709	Neonatal/Pediatric Respiratory Care	4
RESC 3725	Mechanical Ventilation 2	3
RESC 3731	Respiratory Care Management	3
<b>Semester Hours</b>		<b>14</b>
<b>Summer</b>		
RESC 3740	Clinical Practice 2	4
RESC 3750	Pulmonary Rehabilitation	2
<b>Semester Hours</b>		<b>6</b>
<b>Year 4</b>		
<b>Fall</b>		
RESC 3765	Advanced Respiratory Care Diagnostics	3
RESC 3741	Clinical Practice 3	3
RESC 4831	Pulmonary Care Management	3
RESC 4838	Respiratory Seminar 1	1
AHLT 4813	Adult Cardiac and Pediatric Advanced Life Support	3
RESC 4846	Sleep Diagnostics 1 (Optional) <sup>1</sup>	3
RESC 4847	Sleep Clinics 1 (Optional) <sup>1</sup>	1
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
RESC 4835	Clinical Practice 4	3
RESC 4842	Respiratory Seminar 2	1
AHLT 4820	Directed Research	3
Arts & Humanities Elective		3

Social & Personal Awareness Elective		3
RESC 4848	Sleep Diagnostics 2 (Optional) <sup>1</sup>	3
RESC 4849	Sleep Clinics 2 (Optional) <sup>1</sup>	1
<b>Semester Hours</b>		<b>17</b>
<b>Total Semester Hours</b>		<b>134</b>

<sup>1</sup> Sleep Diagnostics Option: The Sleep Diagnostics option is a restricted program. Current BSRC senior students are given preference to enroll in the certificate program. BSRC program GPA is the primary criteria used to select students for the Polysomnography Certificate. BSRC students who enroll in the Sleep Diagnostics option will complete 134 sh. Students who do not take the Sleep Diagnostics option will complete a total of 126 sh.

## Bachelor of Science in Respiratory Care Completion Program

This online program is designed to provide a focused advancement option that will bridge the depth and breadth of knowledge of the certified or registered respiratory therapist who has graduated from a Commission on Accreditation for Respiratory Care (CoARC) accredited associate degree program to meet the clinical and leadership needs of the respiratory care profession. The core curriculum builds on the existing foundation of knowledge and skills in the areas of:

- advanced cardiopulmonary disease management
- advanced clinical applications
- clinical research
- leadership and technology related to the practice of respiratory care

Upon completion of the Required Core Upper Division Courses with a minimum GPA of 2.5, the student will be awarded up to 17 semester hours of upper division credit from their associate degree respiratory care courses.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Writing (6 sh)		
Communications (3 sh)		
Math (3 sh)		
Natural Sciences (6 sh)		
Arts & Humanities (6 sh)		
Social Sciences (6 sh)		
Social & Personal Awareness (6 sh)		
<b>Associate Degree Respiratory Care Courses</b>		
<b>Required Core Upper Division Courses (36 sh)</b>		
RESC 1500	Introduction to Online Learning in Health Professions	3
RESC 3731	Respiratory Care Management	3
RESC 3765	Advanced Respiratory Care Diagnostics	3
RESC 4860	Advanced Management of the Ventilator Patient	3
RESC 4862	Professional Pathways for Respiratory Care Practitioners	3
RESC 4867	Fundamentals of Leader Development	3
RESC 4870	Advanced Cardiopulmonary Case Management	3
RESC 4872	Technology Applications for RCPs	3
AHLT 3705	Pharmacotherapeutics	3
AHLT 4806	Research Methods	3
AHLT 4820	Directed Research	3
AHLT 5840	Comparative Health Systems	3
<b>Electives (If Additional Upper Division Hours Are Needed)</b>		
RESC 4801	Special Topics in Respiratory Care	1-3
RESC 4810	Advanced Neonatal and Pediatric Case Management	3

AHLT 3740	Pathology of Infectious Diseases	3
AHLT 3755	Principles of Occupational Health and Safety	3
AHLT 4804	Stress and the Health Care Professional	3
AHLT 4808	Environmental Health Concerns	3
AHLT 4831	Industrial Hygiene	3
AHLT 5816	Environmental Regulations	3

**Upper Division (3700, 4800 and 5800 level) Hours Required 48 sh**

**Minimum Total Degree Hours 120 sh**

For more information, please visit the Distance Education (<http://cms.ysu.edu/administrative-offices/distance-education/online-bachelor-science-respiratory-care-completion>) website.

## Learning Outcomes

The student learning outcomes for the major in Respiratory Care are as follows:

- Upon completion of the program, graduates will demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to their roles as advanced-level respiratory therapists (cognitive domain).
- Upon completion of the program, graduates will demonstrate technical proficiency in all the skills necessary to fulfill their role as advanced level respiratory therapists (psychomotor domain).
- Upon completion of the program, graduates will demonstrate professional behavior consistent with employer expectations as advanced-level respiratory therapists (affective domain).

The student learning outcomes for the Sleep Diagnostic Option in Respiratory Care are as follows:

- Upon completion of the program, graduates will demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to their roles as sleep disorder specialists (cognitive domain).
- Upon completion of the program, graduates will demonstrate technical proficiency in all the skills necessary to fulfill their role as sleep disorder specialists (psychomotor domain).
- Upon completion of the program, graduates will demonstrate professional behavior consistent with employer expectations as sleep disorder specialists (affective domain).

## Certificate in Health Information Systems

Undergraduate students in Computer Science Information Systems who have an interest in working in healthcare will be afforded the opportunity to acquire a certificate that will teach them computer and data system applications in the healthcare setting. Allied Health and other health-related majors who are already familiar with the healthcare setting will be provided with an opportunity to receive a greater depth and breadth of education in computer and information systems. This will better prepare the student to work with health information systems in the healthcare setting.

COURSE	TITLE	S.H.
<b>Required Core (Must take all of the following courses)</b>		
AHLT 3707	Clinical Informatics for the Healthcare Provider	3
AHLT 3711	Health Care Information Systems	3
AHLT 3745	Impact of Medical Records on Healthcare Reimbursement	3
CSIS 1590	Survey of Computer Science and Information Systems	3
INFO 2663	Information Technology Management	3
<b>Select one of the following courses</b>		
AHLT 3717	Health Care Policy	3
AHLT 5840	Comparative Health Systems	

<b>Select one of the following courses</b>		S.H.
CSIS 1525	Survey of Modern Operating Systems	3-4
CSIS 2605	Fundamentals of Programming and Problem- Solving 2	
CSIS 2610	Programming and Problem-Solving	

**Total Semester Hours**

**21-22**

## Minor in Community Health Planning and Evaluation

The learning outcomes for this minor are:

- Students will be able to describe the context of community health planning and evaluation, its theories, and the organization of community health services.
- Students will be able to demonstrate basic skills in community health planning, evaluation, and if PHLT 4828 is selected, grant funding and development.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
PHLT 1568	Healthy Lifestyles	3
PHLT 3702	Health Education Theory and Methods	3
PHLT 3791	Community Health	3
OR		
AHLT 3708	Preventive Public Health Care	3
PHLT 4801	Field Work in Health Education	1
PHLT 4826	Community Health Planning and Promotion	4
PHLT 4827	Evaluation of Health Promotion Programs	3
PHLT 4828	Grant Writing	3
<b>Total Minor Hours 20 sh</b>		

## Minor in Environmental Health and Safety

The learning outcomes for this minor are:

- The student will be able to describe the historical, social, and ethical development of environmental health and safety.
- The student will be able to describe the governmental organizations that are responsible for administering environmental health and safety in the United States as well as internationally.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
PHLT 1513	Introduction to Environmental Health and Safety	3
AHLT 3708	Preventive Public Health Care	3
PHLT 3709	Elements of Urban Environmental Health Practices	3
AHLT 3755	Principles of Occupational Health and Safety	3
AHLT 4808	Environmental Health Concerns	3
AHLT 4831	Industrial Hygiene	3
AHLT 5816	Environmental Regulations	3
<b>Total Semester Hours</b>		
		<b>21</b>

## Minor in Public Health

The learning outcomes for this minor are:

- The student will be able to describe the five core public health content areas.

- The student will be able to demonstrate basic skills in each of the five core public health content areas.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
PHLT 1568 or PHLT 1531	Healthy Lifestyles Fundamentals of Public Health	3
PHLT 3702	Health Education Theory and Methods	3
PHLT 3709	Elements of Urban Environmental Health Practices	3
PHLT 3791	Community Health	3
PHLT 4826	Community Health Planning and Promotion	4
AHLT 5807	Epidemiology	3
<b>Total Semester Hours</b>		<b>19</b>

## Department of Human Ecology

(330) 941-3344

The Department of Human Ecology offers nine degree programs.

### Associate of Applied Science Degree

- Early Childhood Associate/Pre-K
- Dietetic Technician
- Hospitality Management

The early childhood associate/pre-k, dietetic technician, and hospitality management programs lead to the Associate of Applied Science degree and can be completed in two years.

### Bachelor of Science in Applied Science

- Food and Nutrition (didactic program in dietetics and the coordinated program in dietetics)
- Family and Consumer Studies
- Merchandising: Fashion and Interiors
- Hospitality Management

Baccalaureate programs each lead to the Bachelor of Science in Applied Science degree.

In conjunction with the Beeghly College of Education, a bachelor's program in Family and Consumer Sciences Education leads to the Bachelor of Science in Education degree with the teaching field licensure in family and consumer sciences.

Curriculum sheets for all programs are available at the department office Room 3303, Cushwa Hall.

For more information, visit the Department of Human Ecology. (<http://www.yzu.edu/academics/bitonte-college-health-and-human-services>)

#### Chair

**Zara C. Rowlands**, Ph.D., Associate Professor, Chair

#### Professor

**Priscilla N. Gitimu**, Ph.D., Associate Professor

**Ju Yup Lee**, Ph.D., Assistant Professor

**Jeanine L. Mincher**, Ph.D., Associate Professor

**Patrick O'Leary**, Ph.D., Assistant Professor

**Rachael J. Pohle-Krauz**, Ph.D., Associate Professor

**Tacibaht Turel**, Ph.D., Associate Professor

**Abel Waitaha**, Ph.D., Assistant Professor

#### Instructor

**Amy Raabe**, M.S., Instructor

**Mark Zetts**, M.B.A., Instructor

### Majors

- BSAS in Family and Consumer Studies, Family Studies Option (p. 420)
- BSAS in Family and Consumer Studies, Consumer Studies Option (p. 418)
- BSAS in Family and Consumer Studies, FCS Instructor Option (p. 421)
- AAS in D (p. 421)ietetic Technician (p. 422)
- BSAS in D (p. 422)idactic Program in Dietetics (p. 427)
- BSAS in C (p. 427)ordinated Program in Dietetics (Registration Eligible (p. 425)
- AAS in E (p. 425)arly Childhood-Pre-K (p. 424)
- AAS in Hospitality Management, Restaurant and Food Service Management (p. 417)
- AAS in Hospitality Management, Hotel and Lodging Management (p. 416)
- AAS in Hospitality Management, Event Management (p. 415)
- BSAS in H (p. 415)ospitality Management (p. 429)
- BSAS in (p. 429) Merchandising: Fashion and Interiors (p. 430)

### Minors

- Minor in Fashion (p. 432)

### Child and Family

#### CHFM 1514 Introduction to Early Childhood Education 3 s.h.

Historical and theoretical foundations of early childhood education; overview of early childhood environments, relationships with children and families, and curricular issues. Three (3) hours lecture per week and 15 hours of field observations per semester.

#### CHFM 1530 Infants and Toddlers: Development and Care 3 s.h.

Infant and toddler development and the design of developmentally appropriate curriculum and caregiving environments for children conception to age three. Emphasis on the caregiver-child relationship. Learning will occur through observation, reflection, classroom discussions, focused reading, and practice in infant/toddler settings. Two hours lecture and three hours guided practice.

#### CHFM 2633 Early Childhood: Integrating Development and Education 3 s.h.

Knowledge and skills to plan curriculum and organize learning environments that are developmentally appropriate and responsive to the needs of a diverse population of children ages three to eight. Includes 10 hours of field experience.

**Prereq.:** ENGL 1550.

#### CHFM 2650 Introduction to Assessment of Young Children 3 s.h.

Principles of conducting developmentally appropriate assessments of behavior and development of young children; assessment purposes, strategies, and appropriate use of assessment information. Includes five hours of field experience.

**Prereq.:** Minimum grade of "C" in CHFM 2633 or PSYC 3755.

#### CHFM 2664 Managing Classroom Behavior and Staff Relationships in Early Childhood Settings 3 s.h.

Principles of effective classroom management in the early childhood classroom; emphasis on positive guidance strategies, the influence of the classroom environment on children's behavior, and establishing a collaborative professional team. Includes 10 hours of field/clinical experience.

**Prereq.:** Minimum grade of "C" in CHFM 1514 and minimum grade of "C" in CHFM 2633.

**CHFM 2675 Integrated Curriculum for Prekindergarten 3 s.h.**

Teaching techniques used to implement an integrated early childhood curriculum in the prekindergarten classroom with emphasis on the communication curriculum (language, literacy, and literature) and the inquiry curriculum (math, science, and social studies). Includes 10 hours of field experience.

**Prereq.:** Minimum grade of "C" in CHFM 1514 and minimum grade of "C" in CHFM 2633.

**CHFM 3718 Family Law 3 s.h.**

Fundamental elements of family law, including premarital contracts, traditional and nontraditional marriages and families, procreation rights, legitimacy and paternity, adoption, divorce and separation, property division and support, custody and termination of parental rights, juvenile law, intra-family tort liability and domestic violence.

**Prereq.:** SOC 1500.

**Cross-listed:** CJFS 3718.

**CHFM 3731 Individual and Family Development 3 s.h.**

The family ecosystems, dynamics, and roles throughout the life span, and the impact of heritage and culture on family systems worldwide.

**Prereq.:** PSYC 1560, FNUT 1551.

**CHFM 3733L Practicum Preprimary Settings 3 s.h.**

Includes field placement in a preschool or kindergarten setting. Observe, plan, and implement developmentally appropriate activities for children ages three to eight years. Six hours practicum experience per week. One hour seminar per week.

**Prereq.:** CHFM 2633.

**CHFM 3750 Parent and Professional Relationships 3 s.h.**

Strategies for building working relationships with parents of young children and other professionals in early childhood education. Ten hours field/clinical experience.

**Prereq.:** Minimum grade of "C" in CHFM 2633 or PSYC 3755.

**CHFM 3755 Parenting 3 s.h.**

An examination of parent-child relationships from both a developmental and contextual perspective. Topics include parenting patterns and strategies, parent-child relations as a function of development, and the role of culture and context in the negotiation of roles in parent-child interactions.

**Prereq.:** PSYC 1560 and SOC 1500.

**CHFM 3770 Wellness During the Early Childhood Years 3 s.h.**

Principles of maintaining physically and psychologically safe and healthy learning environments for children; includes nutrition, safety in the classroom, stress and mental health issues, and community resources.

**Prereq.:** Minimum grade of "C" in CHFM 1514 or ECE 2629 or CHFM 3731.

**CHFM 3790 Directed Practice in PreK Education 4 s.h.**

A culminating practicum for the PreK associate degree candidates designed to provide teaching experiences with children in the early childhood years. Students will apply developmental theories and appropriate practices in settings for young children. 300 hours of field work.

**Prereq.:** CHFM 1514, CHFM 3733L.

**Coreq.:** CHFM 3790S.

**CHFM 3790S Directed Practice Seminar 2 s.h.**

Discussion of practicum experiences in assigned preschool classrooms with a focus on developmentally appropriate practices, reflective teaching, and professionalism in early childhood education. Corequisite CHFM 3790.

**Prereq.:** CHFM 1514, CHFM 3733L.

**CHFM 4859 Methods and Materials in Early Childhood Settings 3 s.h.**

Methods and techniques used to implement an integrated early childhood curriculum with emphasis on social, emotional, and physical development and concept formation of young children ages 3 to 8.

**Prereq.:** ECE 2630, CHFM 3790.

**CHFM 5860 Coordination and Evaluation of Early Childhood Programs 3 s.h.**

Administration, organization, and operation of early childhood programs, including legal and ethical guidelines, managing resources, program development and evaluation, advocacy, and public policy in early childhood education. Includes ten hours field/clinical experience.

**Prereq.:** Minimum grade of "C" in CHFM 3733L.

## Food and Nutrition

**FNUT 1512 Food Safety and Sanitation 1 s.h.**

Safe food handling and sanitation practices for students desiring to be employed in the food service industry. Upon successfully completing the ServSafe exam, the student will be awarded the ServSafe Certification and the Ohio Department of Health Food Protection Certification.

**FNUT 1543 Personal Nutrition 1 s.h.**

Basic normal nutrition adaptable to individual lifestyles throughout the lifespan. Emphasis on valid nutrition information, wellness, and healthful food choices. Not applicable to the food and nutrition major.

**FNUT 1551 Normal Nutrition 3 s.h.**

The fundamentals of normal nutrition as they apply to health; nutritional needs during various stages of the life cycle; dietary guides and their application to the selection of adequate diets; problems of nutritional deficiencies and excesses.

**Prereq.:** CHEM 1500 or high school equivalent.

**Gen Ed:** Well Being, Social and Personal Awareness.

**FNUT 1553 Food Science and Management Principles 3 s.h.**

Scientific principles and methods used in selecting, purchasing, and preparing food. Consideration given to nutritional, aesthetic, and socioeconomic factors in meal planning.

**FNUT 1553L Food Science and Management Principles Laboratory 1 s.h.**

Application of principles from FNUT 1553. Three hours lab per week.

**Prereq.:** FNUT 1553 or concurrent.

**FNUT 2603 Medical Nutrition Therapy 1 3 s.h.**

Principles and methods of diet modifications for common diseases; planning and evaluation of modified diets; application of computers for diet analysis. Must be taken concurrently with FNUT 2603L.

**Prereq.:** FNUT 1551, and BIOL 1552L or concurrent.

**FNUT 2603L Medical Nutrition Therapy 1 Lab 1 s.h.**

Application of basic principles of medical nutrition therapy; nutritional assessment; diet calculations. Three hours lab per week.

**Concurrent with:** FNUT 2603.

**FNUT 2609L Food Systems: Supervised Practice 3 s.h.**

Observation of food service facility organization and management function; participation in the operations of a clinical food service facility. Six hours clinical experience per week, one hour seminar per week.

**Prereq.:** ACCT 1503, FNUT 2612 or concurrent, FNUT 2610 or concurrent.

**FNUT 2610 Organization and Management 3 s.h.**

Concepts of organization and management related to hospitality/health care; selecting, training, developing, and supervising for the advancement of personnel. Emphasis on labor-management relations and legal aspects of the management-guest relationship with particular attention to personal and property liability.

**FNUT 2612 Food Systems: Operation, Production, and Service 3 s.h.**

The fundamentals of food service operations including menu planning, purchasing of foods and equipment, care of foods and equipment, efficient work methods, budget and cost control. Also standard principles, techniques in quantity food production, management, and service.

**Prereq.:** FNUT 1553 and FNUT 1553L.

**FNUT 2612L Food Systems: Operations, Production, and Service Laboratory 2 s.h.**

Application of the fundamentals of food systems operations, management, and service. Six hours lab per week.

**Prereq.:** FNUT 1553 and FNUT 1553L.

**Concurrent with:** FNUT 2612.

**FNUT 2613L Medical Nutrition Therapy Supervised Practice 4 s.h.**

Application of the nutrition care process in a medical setting for the dietetic technician. Includes a two hour on-campus seminar, and six hours of supervised clinical experience per week.

**Prereq.:** FNUT 2603 and FNUT 2603L.

**FNUT 2628 Practicum in Dietetic Technology 3 s.h.**

Experience in supervision of food production; assessment, documentation, and teaching of the individual patient or client groups; community nutrition. The role of the dietetic technician in the health care delivery system; overview of current opportunities in the food service field; standards of professional responsibility, practice, and self development. Fifteen discussion hours and 210 hours of clinical experience. Overall GPA of 2.5 required.

**Prereq.:** FNUT 2609L, FNUT 2613L.

**FNUT 2652L Nutrition Assessment Laboratory 1 s.h.**

Procedures and techniques in anthropometric, biochemical, clinical and dietary assessment of nutritional status in healthy and at-risk populations. Three hours lab per week.

**Prereq.:** FNUT 1551.

**FNUT 3720 Nutrition, Health, and Aging 3 s.h.**

Current knowledge of nutrition as it relates to overall health and human aging. Needs of the elderly in normal and diseased conditions. Nutritional needs/ concerns of the elderly in the contexts of their physiological, social, and psychological dilemmas.

**Prereq.:** SOC 1500.

**FNUT 3735 Nutritional Biochemistry 2 s.h.**

Designed for nutrition majors, covers the basic concepts of classification, structure, and function of biological molecules, major metabolic pathways, heredity and immune function, with emphasis on the understanding of the metabolism and function of nutrients.

**Prereq.:** CHEM 1506, CHEM 1506L or CHEM 1516.

**FNUT 3759 Advanced Nutrition 3 s.h.**

Integrated approach to nutrition and health, emphasizing metabolism and functions of nutrients at the cellular level; nutritional needs for optimal health; problems of over nutrition and under nutrition.

**Prereq.:** FNUT 1551, BIOL 1552, BIOL 1552L, FNUT 3735.

**FNUT 3760 Medical Nutrition Therapy 2 3 s.h.**

The nature and etiology of diseases and the relationship of diet to good health and to disease processes; the special dietary needs of abnormal conditions.

**Prereq.:** FNUT 2603, FNUT 3759 or concurrent.

**FNUT 3760L Medical Nutrition Therapy 2 Laboratory 2 s.h.**

Orientation to the dietetic profession. Select clinical experiences providing opportunities for developing an understanding and working knowledge of the nutrition care process and its application to individuals exhibiting special nutritional needs. Six hours lab. Restricted course.

**Concurrent with:** FNUT 3760 and FNUT 3760R.

**FNUT 3760R Medical Nutrition Therapy 2 Laboratory Recitation 2 s.h.**

Orientation to the dietetic profession. Lecture to further students' understanding and working knowledge of the nutrition care process and its application to individuals exhibiting special nutritional needs. Restricted course.

**Concurrent with:** FNUT 3760 and FNUT 3760L.

**FNUT 3761 Science of Nutrition in Exercise 3 s.h.**

Advanced study of concepts related to the integration of nutrition and physical activity in athletic as well as normal and diseased populations. Emphasis on substrate utilization and modification, and nutrient/ergogenic supplementation and crash diets.

**Prereq.:** FNUT 1551, FNUT 3735.

**FNUT 4802 Research Methods in Dietetics 2 s.h.**

Overview of research methodology, statistics and applications in the field of nutrition and dietetics.

**Prereq.:** MATH 2623 or MATH 2625 and junior standing.

**FNUT 4802L Research Methods in Dietetics Laboratory 1 s.h.**

Application of basic concepts of research methodology and statistics to dietetic practice. Three hours lab per week. Permit required.

**Prereq.:** FNUT 4802.

**Concurrent with:** FNUT 4802.

**FNUT 4810 Experimental Foods 2 s.h.**

Advanced study of food science and technology; methodology of food research including evaluation by sensory and objective methods.

**Prereq.:** FNUT 1553 and FNUT 1553L, junior standing.

**FNUT 4810L Experimental Foods Laboratory 1 s.h.**

Application of scientific principles and experimental procedures to cooking processes. Three hours lab per week. Permit required.

**Concurrent with:** FNUT 4810.

**FNUT 4858 Food Service Systems Management 4 s.h.**

Advanced food service systems management principles and processes as they relate to resources and operating subsystems. Focus on subsystem interrelationships.

**Prereq.:** FNUT 2612, junior standing.

**FNUT 4858L Food Systems Management Laboratory 3 s.h.**

Application of the management process to institutional food service systems. Thirteen hours supervised practice, one hour lecture per week.

**Prereq.:** Restricted to Coordinated Program in Dietetics.

**FNUT 4860 Medical Nutrition Therapy 3 3 s.h.**

The nature and etiology of selected disease conditions with focus on solving dietetic problems accompanying them.

**Prereq.:** FNUT 3760.

**FNUT 4860L Medical Nutrition Therapy 3 Lab 3 s.h.**

Selected clinical experience providing opportunities for application of nutritional care process to individuals exhibiting special nutritional needs. Twelve hours lab, one hour lecture per week. Restricted to Coordinated Program in Dietetics.

**FNUT 4872 Maternal and Child Nutrition 2 s.h.**

Principles of the nutritional care process as it relates to the maternal and pediatric population.

**Prereq.:** CHFM 3731 or special approval.

**FNUT 4872L Maternal and Child Nutrition Laboratory 2 s.h.**

Selected clinical experiences providing opportunities for application of nutritional care process to maternal and child population. Four hours clinical experience, one hour lecture per week. Restricted to Coordinated Program in Dietetics.

**Concurrent with:** FNUT 4872.

**FNUT 4873 Nutrition and Aging 2 s.h.**

Nutritional needs of the elderly as influenced by the aging process and disease states; factors affecting the food availability, food intake, and nutritional status of the elderly; nutritional services for the elderly.

**Prereq.:** FNUT 3760 or concurrent.

**FNUT 4873L Nutrition and Aging Laboratory 3 s.h.**

Supervised practice experiences providing opportunities for application of the dietetic process in the extended care setting. One hour lecture, 12 hours clinical experience per week.

**Prereq.:** FNUT 4873 or concurrent and restricted to Coordinated Program in Dietetics.

**FNUT 4874 Community Nutrition and Wellness 3 s.h.**

Public health nutrition and wellness programs and their services to the community. Emphasis on program funding, cultural competence and needs of the underserved and elderly.

**Prereq.:** FNUT 3760.

**FNUT 4874L Community Nutrition and Wellness Laboratory 3 s.h.**

Selected clinical experiences providing opportunities for application of the nutrition care process and wellness education to individuals and groups in the community setting. Sixteen hours clinical experiences, one hour lecture per week.

**Prereq.:** Restricted to Coordinated Program in Dietetics.

**FNUT 4885 Practicum in Dietetics 4 s.h.**

Supervised practice providing opportunities to integrate application and management of medical nutrition therapy into professional practice. Fifteen lecture hours and 280 clinical experience hours. Restricted to Coordinated Program in Dietetics.

**Prereq.:** FNUT 4858L, FNUT 4860L.

**Gen Ed:** Capstone.

**FNUT 4895 DPD Capstone 3 s.h.**

Application of dietetics principles learned in the classroom to situations in clinical, food service-management, and community settings. Provides opportunities for communication with diverse groups, critical thinking, and problem solving. Emphasis on case-study presentations of current issues and trends in the field. One (1) hour lecture and six (6) hours of laboratory per week.

**Prereq.:** FNUT 4858, FNUT 4860, FNUT 4874 or concurrent, and HMEC 4890 or concurrent.

**Gen Ed:** Capstone.

**FNUT 5825 Current Nutrition Concepts 3 s.h.**

Readings and critical appraisal of research literature in nutrition.

**Prereq.:** FNUT 3759, CHEM 3705.

**FNUT 5862 Food and Culture 2 s.h.**

Food practices of selected world cultures. Evaluation of these practices in meeting dietary needs with consideration of the existing social, economic, and environmental conditions.

**Prereq.:** CHFM 3731.

**FNUT 5862L Food and Cultures Laboratory 1 s.h.**

Three hours lab per week. Permit required.

**Concurrent with:** FNUT 5862.

## Human Ecology

**HMEC 1550 Human Ecology Professions 1 s.h.**

Orientation to the history, philosophy, and human eco-system foundation of family and consumer science careers; standards for professional, ethical practice; decision making and career planning. An introductory course for all Human Ecology Department majors or those considering a human ecology major.

**Prereq.:** Minimum grade of "C" in ENGL 1539 or ENGL 1540 or ENGL 1550 or ENGL 1550H or ENGL 1551 or ENGL 1551H or Placement 00 in ENGL 1550 or ENGL 1550H or ENGL 1551 or ENGL 1551H.

**HMEC 3780 Consumer Economics 3 s.h.**

Managing personal and family economic resources through the critical thinking and rational decision-making processes. Includes discussion of current consumer issues and resources for consumer information.

**Prereq.:** ECON 1501 or ECON 1502 or ECON 1503 or ECON 2610.

**HMEC 4800 Teaching in Family and Consumer Sciences 3 s.h.**

Methods of organization, instruction, and evaluation for teaching in vocational family and consumer sciences.

**Prereq.:** Minimum grade of "C" in CHFM 3731.

**HMEC 4835 Field Experiences in Human Ecology 3 s.h.**

Internship in a community agency or commercial enterprise related to human ecology. Four hours experience or two hours of seminar weekly equal one credit hour. May be repeated up to 6 s.h.. Student must file application one semester prior to registering.

**Prereq.:** twelve s.h. of Human Ecology credit and junior standing.

**HMEC 4836 Internship 1-9 s.h.**

Integration of theory and practice through supervised field-based experiences in a professional setting. May be taken over consecutive semesters with PR grading for first semester; 75 hours of field work per credit hour. May be repeated up to 12 s.h., 2.5 GPA. in major, and 18 s.h. in required major courses.

**Prereq.:** Junior standing, HMEC 1550, 2.0 overall GPA.

**HMEC 4852 Family Resource Management 3 s.h.**

A systems view of family functioning with the emphasis on managerial decision making and effective use of resources.

**Prereq.:** CHFM 3731 or PSYC 3707 or SOC 3705.

**HMEC 4853 Family Financial Education 3 s.h.**

Financial management principles and application in the context of family type and stage of the life cycle; financial literacy education curricula, resources, and teaching strategies.

**Prereq.:** Minimum grade of "C" in HMEC 3780 and HMEC 4852.

**HMEC 4875 Directed Individual Study 1-3 s.h.**

Individual study or research of a special problem or issue related to human ecology. Application must be made with the department prior to registration.

**Prereq.:** 12 s.h. human ecology credit and senior standing.

**HMEC 4876 Undergraduate Research 2 s.h.**

Individual research that addresses a significant family or consumer issue; research methods, literature review, and proposal development.

**Prereq.:** CHFM 3731 and PSYC 2617 or FNUT 4802.

**Gen Ed:** Capstone.

**HMEC 4877 Research Capstone 2 s.h.**

Individual research that addresses a significant family or consumer issue; collection and analysis of data; dissemination of results through written and oral reports.

**Prereq.:** HMEC 4876.

**Gen Ed:** Capstone.

**HMEC 4890 Communication of Contemporary Issues 3 s.h.**

This course enables students to understand the interrelationships of the specializations in the field of family and consumer sciences while exploring public policy issues that impact the family and the profession. Students will develop skills in the application of demonstration, audiovisual, and public relations tools and techniques in communicating human ecology information to target groups from preschool to adult. Two hours of lecture and 2 hours of lab per week.

**Prereq.:** CMST 1545, HMEC 1550, junior standing.

**HMEC 5870 Human Ecology Workshop 1-3 s.h.**

Special workshops in a professional area of human ecology as needed.

**Prereq.:** junior standing.

**HMEC 5892 Community Programming in Human Ecology 3 s.h.**

Development of human ecology programs for special populations including adults, aging, disadvantaged, displaced homemakers, teenage parents, handicapped, and others with special needs.

**Prereq.:** CHFM 3731.

**HMEC 5893 Work and Family 3 s.h.**

Interaction of work and family systems; implications for education, business, and human services; development of programs to assist individuals in balancing multiple roles.

**Prereq.:** CHFM 3731, SOC 3705, or PSYC 3707.

**HMEC 5895 International Studies in Human Ecology 1-4 s.h.**

Professional areas of human ecology and their relationship to native cultures are the focus of travel to designated countries. Class sessions and travel as well as pre-tour and post-tour assignments and evaluation based on course objectives supervised by human ecology faculty.

**Prereq.:** CHFM 3731, junior standing, permission of instructor and department chairperson.

## Hospitality Management

**HMGY 1500 Introduction to Hospitality Industry 3 s.h.**

General overview of the hospitality industry with perspectives on the organizational structure, operations, management and various associated issues.

**HMG 2603 Hospitality Managerial Accounting 1 4 s.h.**

Using the "Uniform System of Accounting for Small Hotels, Motels, and Motor Hotels," introduces the unique requirements of hospitality industry record keeping. Focus on using financial data to safeguard assets, control costs, budget and plan, and practice yield management.

**Prereq.:** MATH 1552 or MATH 2623.

**HMG 2622 Hotel Management 3 s.h.**

The role of service departments within a hotel, such as housekeeping, front office, security (or night audits), and concierge. Topics include: fundamental lodging classifications and brands in the lodging industry, recent trends, the relationship between the hotel rooms department and other departments.

**Prereq.:** HMG 1500 or HMG 1501.

**HMG 2634 Hospitality Management Information Systems 3 s.h.**

Overview of the management information systems of hotels, restaurants, and other hospitality industries.

**Prereq.:** CSIS 1514.

**HMG 2691 Hospitality Cooperative Work Experience 3 s.h.**

Work experience in which the student assumes supervisory responsibilities within an assigned food-service or lodging facility. One hour seminar and 20 hours work experience per week.

**Prereq.:** "C" or better in HMEC 1550 and HMG 1500; 2.0 GPA.

**HMG 3719 Facilities Management 4 s.h.**

Maintenance, engineering and security principles for lodging and food service properties. Technical information, preventive maintenance, engineering, housekeeping and security department roles; security techniques used to enhance safety of persons and property, including loss prevention, administration, organization, emergency planning, and liability.

**Prereq.:** HMG 1500 or HMG 1501.

**HMG 3725 Food and Beverage Management 3 s.h.**

Managerial authority and responsibilities in setting goals, forecasting, controlling quality and costs, establishing policy in the successful operation of a food and beverage department. Two hours lecture, two hours lab.

**Prereq.:** FNU 2612.

**HMG 3734 Front Office Operation 3 s.h.**

Advanced study of the front-office management from reservations through checkout including the property management systems, central reservation system, and their impacts on other lodging operations.

**Prereq.:** "C" or better in HMG 2622.

**HMG 3745 Hospitality Marketing and Sales 4 s.h.**

Basic concepts and practices of modern hospitality marketing, which enable students to develop strategic and operating marketing plans for hospitality industries.

**Prereq.:** "C" or better in HMG 1500 or HMG 1501.

**HMG 4804 Hospitality Industry Law and Ethics 3 s.h.**

Legal aspects of managing a hotel, resort, or restaurant. Provides an understanding of preventive measures to avoid or successfully deal with litigation. Includes legal research, licensing, innkeepers' obligations.

**Prereq.:** MGT 2604; "C" or better in HMEC 1550 and HMG 3719.

**HMG 4846 Event Management 3 s.h.**

Focus on the career of meeting and convention management, includes adult learning theory, finance, promotion, post-meeting evaluation, facility selection, budgeting, exhibit management, physical facilities, pre-event planning.

**Prereq.:** MKTG 3703 or "C" or better in HMG 3745.

**HMG 4896 Hospitality Operations Management 3 s.h.**

Capstone course requiring a broad application of knowledge and skills. Students solve operational dilemmas and make decisions reflecting the diverse nature of managing a hotel, resort, and food-service property.

**Prereq.:** "C" or better in HMG 2691 and CHF 3731.

## Merchandising: Fashion and Interiors

**MRCH 1506 Clothing and Image Development 3 s.h.**

Purpose and meaning of dress and adornment as a means of communication and social identity.

**MRCH 1508 Apparel Production 3 s.h.**

Methods, materials and the fundamental techniques and skills required in the production of apparel. Two hours lecture, four hours lab per week.

**MRCH 1510 Apparel Evaluation 3 s.h.**

Analysis and evaluation of aspects of garment construction and styling relating to making merchandising decisions.

**MRCH 2625 The World of Fashion 3 s.h.**

Overview of fashion-influenced industries: Textiles, Apparel, Accessories, and Home Furnishings.

**MRCH 2661 Fundamentals of Interior Design 3 s.h.**

Studio course in theory, elements and principles of interior design. An introduction to planning, materials, furnishings, work methods, and problem solving to meet human needs. Introduces architectural drawing including plans, elevations, details and basic drafting skills within the context of interior design.

**MRCH 2662 Computer Applications for Housing and Interiors 3 s.h.**

Computer-aided drafting and design using the basic commands of AutoCAD to produce architectural and interior drawings, including dimensional plans, evaluations, and details. Two hours lecture and 3 hours lab per week.

**MRCH 2663 Materials and Methods 3 s.h.**

Principles and functions of materials and methods used in the construction of furnishings and housing materials. Raw materials, selection, use, care, and selling points of paper, leather, fur, woods, metals, glass, ceramics, and plastics. Examines the furnishings industry with emphasis on forecasting, planning, selecting, negotiating, pricing, and recording merchandise.

**Prereq.:** MRCH 2662.

**MRCH 3705 Fashion Textiles 3 s.h.**

Study of textiles, including their characteristics, functions, purposes, and care. Fibers, yarns, construction, finishes, and textile legislation. Two hours lecture, two hours lab.

**Prereq.:** CHEM 1500, CHEM 1500L or CHEM 1505, CHEM 1505L.

**MRCH 3713 Merchandise Buying 3 s.h.**

Strategies and philosophies of merchandise selection. Topics examined include the organization of the buying function, determining what to buy based on customer needs, visiting the market, vendor analysis and selection, and the buyer's responsibilities in other areas of the firm. The product dimension and global sourcing are explored in depth.

**Prereq.:** MATH 2623 or MATH 1570; CSIS 1514 and MRCH 2625.

**MRCH 3715 Fashion Promotion and Fashion Show Production 3 s.h.**

Explorations of how the fashion industry creates awareness and stimulate customer demand through advertising campaigns, sales promotion, public relations and fashion shows. Discussions on ethical considerations in fashion promotion. Detailed deliberations and hands-on-activities on production and execution of a fashion show to promote fashion goods while engaging the community in philanthropy.

**Prereq.:** MKTG 3703 or MRCH 2625 or MRCH 1506.

**MRCH 3730 Social Psychology of Clothing and Appearance 3 s.h.**

Interdisciplinary study of clothing and appearance within contexts of cultural, social-psychological, physical, and aesthetic relationships. Emphasize origins and motives of dress and adornment, relationship of clothing and appearance to self, and appearance as a factor in interpersonal and collective behavior. Explicitly connects the fields of fashion and social psychology.

**Prereq.:** ENGL 1551, PSYC 1560 and SOC 1500.

**MRCH 3740L Computer Applications for Textiles & Apparel Lab 3 s.h.**

Exploration of computer and software applications used in the fashion industry. The use of computer-aided design (CAD) to produce technical drawings, sketches, color stories and textile prints for design and merchandising presentations. Two hours lecture, three hours lab.

**Prereq.:** MRCH 1506 or MRCH 2661.

**MRCH 3742 Applied Textile Design 3 s.h.**

Use of color application and needlework processes in production of clothing and home furnishings. Exploration into the process of fabric design as a part of textile end product development. Students will design their own fabrics and textile products using dyeing, printing and needlework methods. Two hours lecture, three hours lab.

**Prereq.:** MRCH 1506.

**MRCH 3745 Product Line Development 3 s.h.**

The theory and practice of sewn products development. Includes technology applications and practical experience in product development for fashion influenced textile goods. 2 hours lecture & 3 hours lab.

**Prereq.:** MRCH 1508 or MRCH 1506 or MRCH 2661.

**MRCH 3760 Visual Merchandising 3 s.h.**

Evaluation and creation of visual displays for the purpose of selling fashion, home furnishings, and other merchandise. Independent and cooperative work in analyzing store displays in the field, making recommendations for fixtures and displays, creating class projects, and working on visual displays and plans. Two hours lecture, two hours lab.

**Prereq.:** MRCH 1506 or MRCH 2661.

**MRCH 3764 Family Housing and Technology 3 s.h.**

Planning the home environment to meet family needs and resources; consumer decisions in selection of residences, floor plans, and household technology.

**Prereq.:** SOC 1500.

**MRCH 3795 Fashion Industry Tour 1 s.h.**

Concentrated on-site study of the fashion industry including tours of laboratories, designer workrooms, showrooms, buying offices and related organizations. Pre-tour orientations and written report of experiences required.

**Prereq.:** MRCH 1506 or MRCH 1510 or MRCH 2625.

**MRCH 4870 Global Fashion Economy 3 s.h.**

Exploration of the nature of the global textile and apparel economy. Identifying the challenges of sourcing textiles and apparel products internationally. Discussion of the various countries and regions that buy and manufacture fashion goods. Junior standing.

**Prereq.:** MRCH 2625.

**MRCH 4877 History of Fashion 3 s.h.**

Chronological study of fashion from antiquity through the twentieth century. The focus will be on style identification as well as the influence of social, political, and economic conditions as well as cultural and technological changes upon fashion and appearance.

**Prereq.:** Junior standing and any one of the following: MRCH 2625, junior standing.

**MRCH 4879 History of Furnishings and Interiors 3 s.h.**

A chronological study of interiors and furnishings from antiquity to the twentieth century will be explored. The focus will be on style identification as well as the influence of social, political, and economic conditions upon furnishings and development.

**Prereq.:** MRCH 2663 or MRCH 2625.

**MRCH 4880 Merchandising Management 3 s.h.**

Principles of merchandising applied to planning, development, and presentation of product lines in both the production and marketing of apparel, soft line, and other consumer goods. Relates the role of merchandising to other business fundamentals.

**Prereq.:** MRCH 3713, MGT 3725.

**Gen Ed:** Capstone.

## Associate of Applied Science in Hospitality Management, Event Management Track

Mark J. Zetts, MBA

AAS- Hospitality Management Program Director

(330) 941-1784

mjzetts01@ysu.edu

Students may earn an associate degree and/or a bachelor's degree with a major in hospitality management. The hospitality management programs provide students with the knowledge and skills needed to be successful and competent in this fast-growing field, not only in the United States but throughout the world.

The Associate of Applied Science degree articulates with the bachelor's degree. The Bachelor of Science in Applied Science program exposes students to advanced management concepts in lodging, food and beverage, or event management.

The Event Management track provides coursework to prepare graduates to plan leisure activities, sporting events and other celebrations from arranging food and entertainment to reserving venues and accommodations for guests.

The Restaurant and Foodservice track prepares graduates for managing restaurant or institutional food service operations.

The Hotel and Lodging track prepares graduates for careers in the lodging area of hospitality - cruise ships, resorts and hotels.

For more information, contact Mr. Mark Zetts at mjzetts01@ysu.edu or (330) 941-1784

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		14
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	
Arts and Humanities		3
Social Science		3
<b>Other Requirements</b>		
CSIS 1514	Business Computer Systems	3
<b>Major Requirements</b>		
Must have C or better; courses cannot be taken Credit/No Credit		
HMEC 1550	Human Ecology Professions	1
HMGT 1500	Introduction to Hospitality Industry	3
FNUT 1512	Food Safety and Sanitation	1
FNUT 1551	Normal Nutrition	3
FNUT 1553 & 1553L	Food Science and Management Principles and Food Science and Management Principles Laboratory	4
HMGT 2603	Hospitality Managerial Accounting 1	4
HMGT 2691	Hospitality Cooperative Work Experience (Permit required, see advisor. Student must sign up for permit prior to registration.)	3
HMGT 3719	Facilities Management	4
HMGT 3745	Hospitality Marketing and Sales	4
<b>Event Management</b>		
FNUT 2612 & 2612L	Food Systems: Operation, Production, and Service and Food Systems: Operations, Production, and Service Laboratory	5
HMGT 4846	Event Management	3
60 s.h. required for the degree - select elective(s)		2
<b>Total Semester Hours</b>		<b>60</b>



Some courses are offered only once a year; see your advisor for proper prerequisites and sequence of courses. This curriculum articulates perfectly with the Bachelor of Science program in Applied Science in Hospitality Management. Some alternative coursework, including ACCT, MGT, and MKTG courses, may be taken in the Williamson College of Business Administration where a minimum GPA of 2.5 is required.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
HMEC 1550	Human Ecology Professions	1
HMG 1500	Introduction to Hospitality Industry	3
ENGL 1550	Writing 1	3
FNUT 1512	Food Safety and Sanitation	1
FNUT 1553	Food Science and Management Principles	3
FNUT 1553L	Food Science and Management Principles Laboratory	1
MATH 2623	Quantitative Reasoning	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
FNUT 2610 or MGT 3725	Organization and Management (GPA > 2.5 required for MGT 3725) or Fundamentals of Management	3
ENGL 1551	Writing 2	3
FNUT 2612	Food Systems: Operation, Production, and Service	3
FNUT 2612L	Food Systems: Operations, Production, and Service Laboratory	2
CSIS 1514	Business Computer Systems	3
<b>Semester Hours</b>		<b>14</b>
<b>Year 2</b>		
<b>Fall</b>		
HMG 2603 or ACCT 1503	Hospitality Managerial Accounting 1 (ACCT 1503 - 3 s.h.) or Elementary Accounting	4
HMG 3719	Facilities Management	4
HMG 3745	Hospitality Marketing and Sales	4
Arts & Humanities or Natural Science Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CMST 1545	Communication Foundations	3
HMG 4846	Event Management	3
HMG 2691	Hospitality Cooperative Work Experience	3
Social Science Elective		3
Elective - your choice		2
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>60</b>

## Learning Outcomes

At the completion of the hospitality management program, graduates will be able to:

- Demonstrate appropriate customer and guest service practices, skills and behaviors required during customer involvement that contribute to customer satisfaction.
- Demonstrate the knowledge of fundamental principles of leadership and the ability to work with a group of people to formulate rational solutions to hospitality operational problems.

- Demonstrate quality food preparation and presentation skills, using appropriate health, safety, sanitation, and environmental protection procedures in hospitality.
- Demonstrate the use and knowledge of current technologies in the hospitality industry. Explain key factors in the design, development, and maintenance of the industry facilities and apply relevant technologies in ways that enhance organizational performance.
- Demonstrate the ability to market hospitality goods and services effectively and responsibly.
- Analyze legal, ethical, and socio-political considerations affecting organizations to make management decisions.
- Demonstrate use of accepted accounting practice and sound financial management.

## Associate of Applied Science in Hospitality Management, Hotel and Lodging Management Track

Mark J. Zetts, MBA  
AAS- Hospitality Management Program Director  
330-941-1784  
mjzett01@ysu.edu

Students may earn an associate degree and/or a bachelor's degree with a major in hospitality management. The hospitality management programs provide students with the knowledge and skills needed to be successful and competent in this fast-growing field, not only in the United States but throughout the world.

The Associate of Applied Science degree articulates with the bachelor's degree. The Bachelor of Science in Applied Science program exposes students to advanced management concepts in lodging, food and beverage, or event management.

The Hotel and Lodging track provides coursework to prepare graduates to manage all aspects of providing accommodations and lodging services for guests.

## Learning Outcomes

At the completion of the hospitality management program, graduates will be able to:

- Demonstrate appropriate customer and guest service practices, skills and behaviors required during customer involvement that contribute to customer satisfaction.
- Demonstrate the knowledge of fundamental principles of leadership and the ability to work with a group of people to formulate rational solutions to hospitality operational problems.
- Demonstrate quality food preparation and presentation skills, using appropriate health, safety, sanitation and environmental protection procedures in hospitality.
- Demonstrate the use and knowledge of current technologies in the hospitality industry. Explain key factors in the design, development and maintenance of the industry facilities and apply relevant technologies in ways that enhance organizational performance.
- Demonstrate the ability to market hospitality goods and services effectively and responsibly.
- Analyze legal, ethical, and socio-political considerations affecting organizations to make management decisions.
- Demonstrate use of accepted accounting practice and sound financial management.

**COURSE TITLE**  
**General Education Requirements**

**S.H.**

Core Competencies		14
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	
Natural Sciences or Social Science		3
A & H elective		3
<b>Other Requirements</b>		
CSIS 1514	Business Computer Systems	3
<b>Major Requirements</b>		
Must have C or better; courses cannot be taken Credit/No Credit		
HMEC 1550	Human Ecology Professions	1
HMG 1500	Introduction to Hospitality Industry	3
FNUT 1512	Food Safety and Sanitation	1
FNUT 1551	Normal Nutrition	3
FNUT 1553 & 1553L	Food Science and Management Principles and Food Science and Management Principles Laboratory	4
FNUT 2610	Organization and Management	3
HMG 2603	Hospitality Managerial Accounting 1	4
HMG 2691	Hospitality Cooperative Work Experience (Permit required, see advisor. Student must sign up for permit prior to registration.)	3
HMG 3719	Facilities Management	4
HMG 3745	Hospitality Marketing and Sales	4
<b>Hotel and Lodging Management</b>		
HMG 2622	Hotel Management	3
HMG 3734	Front Office Operation	3
Elective - 1 s.h.		1
<b>Total Semester Hours</b>		<b>60</b>

Some courses offered only once a year; see your advisor for proper prerequisites and sequence of courses. This curriculum articulates perfectly with the Bachelor of Science program in Applied Science in hospitality management. See your advisor regarding prerequisites for AKCT, MGT, and MKTG courses.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
HMEC 1550	Human Ecology Professions	1
HMG 1500	Introduction to Hospitality Industry	3
ENGL 1550	Writing 1	3
FNUT 1553	Food Science and Management Principles	3
FNUT 1553L	Food Science and Management Principles Laboratory	1
FNUT 1512	Food Safety and Sanitation	1
CSIS 1514	Business Computer Systems	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
FNUT 2610 or MGT 3725	Organization and Management or Fundamentals of Management	3
ENGL 1551	Writing 2	3
FNUT 1551	Normal Nutrition (Also counts as SPA elective)	3
HMG 2622	Hotel Management	3

MATH 2623	Quantitative Reasoning	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
HMG 2603	Hospitality Managerial Accounting 1	4
HMG 3734	Front Office Operation	3
HMG 3719	Facilities Management	4
HMG 3745	Hospitality Marketing and Sales	4
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CMST 1545	Communication Foundations	3
HMG 2691	Hospitality Cooperative Work Experience	3
Artistic & Literary Perspective Elective		3
Social Science Elective		3
Elective - 1 s.h.		1
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>60</b>

## Associate of Applied Science in Hospitality Management, Restaurant and Food Service Management Track

**Mark J. Zetts, MBA**  
**AAS- Hospitality Management Program Director**  
**(330) 941-1784**  
**mjzetts01@ysu.edu**

Students may earn an associate degree and/or a bachelor's degree with a major in hospitality management. The hospitality management programs provide students with the knowledge and skills needed to be successful and competent in this fast-growing field, not only in the United States but throughout the world.

The Associate of Applied Science degree articulates with the bachelor's degree. The Bachelor of Science in Applied Science program exposes students to advanced management concepts in lodging, food and beverage, or event management.

The Food Service Management track provides coursework to prepare graduates to plan and implement large and small scale catered events, as well as manage and market restaurant and catering operations.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	3
Arts and Humanities		3
Natural Sciences or Social Sciences elective		3
First-Year Experience		
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	
<b>Other Requirements</b>		
CSIS 1514	Business Computer Systems	3
FNUT 2610	Organization and Management	3
<b>Major Requirements</b>		
Must have C or better; courses cannot be taken Credit/No Credit		
HMG 1500	Introduction to Hospitality Industry	3

FNUT 1512	Food Safety and Sanitation	1
FNUT 1543	Personal Nutrition ((FNUT 1551 counts as a SPA elective))	1
or FNUT 1551	Normal Nutrition	
HMEC 1550	Human Ecology Professions	1
FNUT 1553 & 1553L	Food Science and Management Principles and Food Science and Management Principles Laboratory	4
HMG 2603	Hospitality Managerial Accounting 1	4
HMG 2691	Hospitality Cooperative Work Experience (Permit required, see advisor. Student must sign up for permit prior to registration.)	3
HMG 3719	Facilities Management	4
HMG 3745	Hospitality Marketing and Sales	4
<b>Restaurant and Foodservice Management</b>		
FNUT 2612 & 2612L	Food Systems: Operation, Production, and Service and Food Systems: Operations, Production, and Service Laboratory	5
HMG 3725	Food and Beverage Management	3
<b>Total Semester Hours</b>		<b>60</b>

Some courses offered only once a year; see your advisor for proper prerequisites and sequence of courses. This curriculum articulates perfectly with the Bachelor of Science program in Applied Science in hospitality management. See your advisor regarding prerequisites for ACCT, MGT, and MKTG courses.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
HMG 1500	Introduction to Hospitality Industry	3
ENGL 1550	Writing 1	3
HMEC 1550	Human Ecology Professions	1
FNUT 1553	Food Science and Management Principles	3
FNUT 1553L	Food Science and Management Principles Laboratory	1
FNUT 1512	Food Safety and Sanitation	1
MATH 2623	Quantitative Reasoning	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
FNUT 2610	Organization and Management	3
FNUT 1543 or FNUT 1551	Personal Nutrition or Normal Nutrition	1
ENGL 1551	Writing 2	3
FNUT 2612	Food Systems: Operation, Production, and Service	3
FNUT 2612L	Food Systems: Operations, Production, and Service Laboratory	2
CSIS 1514	Business Computer Systems	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
HMG 2603	Hospitality Managerial Accounting 1	4
HMG 3719	Facilities Management	4
HMG 3745	Hospitality Marketing and Sales	4
Natural Science Elective		4
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
CMST 1545	Communication Foundations	3
HMG 3725	Food and Beverage Management	3
HMG 2691	Hospitality Cooperative Work Experience	3
Social Science Elective		3
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>60</b>

## Bachelor of Science in Applied Science in Family and Consumer Studies, Consumer Studies Track

Dr. Abel Waithaka  
 Program Coordinator  
 330-941-2635  
 agwaithaka@ysu.edu

The Family Studies and Consumer Studies tracks are designed to provide an in-depth understanding of individuals and families across the life span, and to prepare students to work in agencies serving children, families, and consumers. Students may create a unique program that reflects their career interests or graduate school goals or find employment in a variety of community agencies and businesses related to their areas of study. The Family and Consumer Studies degree prepares the student to obtain Certified in Family and Consumer Sciences (CFCS) certification.

The Family and Consumer Sciences Instructor track prepares students to teach in educational programs, grade four through adult levels, and meets the course requirements for the Family and Consumer Sciences Career/Technical Teaching License required in Ohio's schools. The track includes 100 hours of supervised field work and one semester of student teaching in a secondary school. Graduates will be required to pass the State examination for teachers in order to receive a teaching license.

For more information, contact Dr. Abel Waithaka or visit the Department of Human Ecology in Cushman Hall 3325.

COURSE	TITLE	S.H.
<b>General Education Requirement</b>		
Core Competencies		14
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	
Arts and Humanities		6
Natural Sciences		6
Social Science		6
Social and Personal Awareness		6
PHLT 1568	Healthy Lifestyles	
FNUT 1551	Normal Nutrition	
<b>Major Requirements</b>		
CHFM 3731	Individual and Family Development	3
MRCH 3764	Family Housing and Technology	3
HMEC 1550	Human Ecology Professions	1
HMEC 3780	Consumer Economics	3
HMEC 4836	Internship	3
HMEC 4890	Communication of Contemporary Issues	3
HMEC 4852	Family Resource Management	3

HMEC 4876	Undergraduate Research	2
PSYC 2617	Research Methods for Psychology	3
or FNUT 4802	Research Methods in Dietetics	
HMEC 4877	Research Capstone	2
<b>Consumer Studies Option</b>		
MRCH 3705	Fashion Textiles	3
MRCH 3730	Social Psychology of Clothing and Appearance	3
FNUT 1553 & 1553L	Food Science and Management Principles and Food Science and Management Principles Laboratory	4
Department Electives - select 5 courses from the following - at least 9 s.h. upper division		15
HMG 1500	Introduction to Hospitality Industry	
MRCH 1510	Apparel Evaluation	
MRCH 2625	The World of Fashion	
MRCH 3740L	Computer Applications for Textiles & Apparel Lab	
MRCH 3764	Family Housing and Technology	
CHFM 3718	Family Law	
CHFM 3770	Wellness During the Early Childhood Years	
HMG 4846	Event Management	
FNUT 5862 & 5862L	Food and Culture and Food and Cultures Laboratory	
HMEC 5892	Community Programming in Human Ecology	
Minor		18
Electives to meet program requirement of 120 total hours		13
<b>Total Semester Hours</b>		<b>120</b>

Contact your program director for guidance in choosing a minor. Good matches with FCS are Non-Profit Leadership, General Psychology, Interpersonal Communications, Public Health, and Women and Gender studies, but many other minors are available

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
ENGL 1550	Writing 1	3
HMEC 1550	Human Ecology Professions	1
PSYC 1560	General Psychology	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
Natural Science Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
FNUT 1551	Normal Nutrition	3
SOC 1500	Introduction to Sociology	3
Natural Science + Lab		4
Department Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
FNUT 1553 & 1553L	Food Science and Management Principles and Food Science and Management Principles Laboratory	4
MATH 2623	Quantitative Reasoning	3
Arts and Humanities Elective		3
Social and Personal Awareness Elective		3

Department Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ECON 2610 or ECON 1501	Principles 1: Microeconomics or Economics in Action	3
MRCH 3705	Fashion Textiles	3
Arts and Humanities Elective		3
Department Elective		3
Course in Minor		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
MRCH 3730	Social Psychology of Clothing and Appearance	3
MRCH 3764	Family Housing and Technology	3
PSYC 3758	Lifespan Development	3
Course in Minor		3
Course in Minor		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
HMEC 3780	Consumer Economics	3
PSYC 2617	Research Methods for Psychology	3
CHFM 3731	Individual and Family Development	3
Department Elective		3
Minor Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
HMEC 4890	Communication of Contemporary Issues	3
HMEC 4876	Undergraduate Research	2
Course in Minor		3
Department Elective		3
Other Electives		3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
HMEC 4836	Internship	3
HMEC 4852	Family Resource Management	3
Course in Minor		3
Other Electives		3
HMEC 4877	Research Capstone	2
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

Graduates in the family and consumer studies major will be able to:

- Use family science research and human systems theory to describe the internal dynamics of families and the interrelationships of individuals and families with their environments.
- Identify factors that influence human development across the life span.
- Apply appropriate technologies, critical-thinking, research methods, and communication skills to address significant family and consumer issues.
- Use concepts of resource development, management, and sustainability to evaluate individual, family, and community resource allocation practices.
- Analyze ethical questions that affect families and consumers.
- Relate to others with concern and respect for diversity of family forms, cultural variations among families, and individual differences.
- Follow professional and ethical standards in professional practice settings.

- Evaluate public policies that impact the well-being of individuals, families, consumers, and communities.
- Plan, implement, and evaluate educational programs serving children, families, and consumers.

## Bachelor of Science in Applied Science in Family and Consumer Studies, Family Studies Track

Dr. Abel Waithaka  
Program Coordinator  
(330) 941-2635  
agwaithaka@ysu.edu

The Family Studies and Consumer Studies tracks are designed to provide an in-depth understanding of individuals and families across the life span and to prepare students to work in agencies serving children, families, and consumers. Students may create a unique program that reflects their career interests or graduate school goals, or find employment in a variety of community agencies and businesses related to their areas of study. The Family and Consumer Studies degree prepares the student to obtain CFCS (Certified in Family and Consumer Sciences) certification.

For more information, visit the Human Ecology Department in Cushwa Hall 3325 or contact Dr. Waithaka.

COURSE	TITLE	S.H.
<b>General Education Requirement</b>		
Basic Skills		14
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	
Arts and Humanities		6
Natural Sciences		6
Social Science		6
PSYC 1560	General Psychology	
SOC 1500	Introduction to Sociology	
Social and Personal Awareness		6
FNUT 1551	Normal Nutrition	
<b>Major Requirements</b>		
PHLT 1568	Healthy Lifestyles	3
CHFM 3731	Individual and Family Development	3
MRCH 3764	Family Housing and Technology	3
HMEC 1550	Human Ecology Professions	1
HMEC 3780	Consumer Economics	3
HMEC 4836	Internship	3
HMEC 4890	Communication of Contemporary Issues	3
HMEC 4852	Family Resource Management	3
PSYC 2617	Research Methods for Psychology	3
HMEC 4876	Undergraduate Research	2
HMEC 4877	Research Capstone	2
<b>Family Studies Option</b>		
HMEC 5893	Work and Family	3
CHFM 3750	Parent and Professional Relationships	3
PHLT 2692	Human Sexuality	3
PSYC 3755	Child Development	3
Department Electives		16

May include course with CHFM, FNUT, HMEC, MRCH or HMGT prefix if pre-requisites are met

Minor		18
Electives to meet 120 total hours (6 s.h.)		6
<b>Total Semester Hours</b>		<b>119</b>
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
HMEC 1550	Human Ecology Professions	1
PSYC 1560	General Psychology	3
PHLT 1568	Healthy Lifestyles (Permit required, see advisor)	3
CMST 1545	Communication Foundations	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
FNUT 1551	Normal Nutrition	3
SOC 1500	Introduction to Sociology	3
Natural Science + Lab		4
Department Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
PHLT 2692	Human Sexuality	3
MATH 2623	Quantitative Reasoning	3
Arts and Humanities Elective		3
Department Elective		3
Natural Science Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ECON 2610 or ECON 1501	Principles 1: Microeconomics or Economics in Action	3
Arts and Humanities Elective		3
PSYC 3755	Child Development	3
Department Elective		3
Minor Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
CHFM 3750	Parent and Professional Relationships	3
MRCH 3764	Family Housing and Technology	3
PSYC 3758	Lifespan Development	3
HMEC 4875	Directed Individual Study	2
Minor Course		3
Minor Course		3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
HMEC 3780	Consumer Economics	3
CHFM 3731	Individual and Family Development	3
PSYC 2617	Research Methods for Psychology	3
Minor Course		3
Department Elective		2
<b>Semester Hours</b>		<b>14</b>

**Year 4**

<b>Fall</b>		
HMEC 5893	Work and Family	3
HMEC 4890	Communication of Contemporary Issues	3
HMEC 4876	Undergraduate Research	2
Minor Course		3
Elective		3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
HMEC 4836	Internship	3
HMEC 4852	Family Resource Management	3
Minor Course		3
University Elective		3
HMEC 4877	Research Capstone	2
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

Graduates in the family and consumer studies major will be able to:

- Use family science research and human systems theory to describe the internal dynamics of families and the interrelationships of individuals and families with their environments.
- Identify factors that influence human development across the life span.
- Apply appropriate technologies, critical-thinking, research methods, and communication skills to address significant family and consumer issues.
- Use concepts of resource development, management, and sustainability to evaluate individual, family, and community resource allocation practices.
- Analyze ethical questions that affect families and consumers.
- Relate to others with concern and respect for diversity of family forms, cultural variations among families, and individual differences.
- Follow professional and ethical standards in professional practice settings.
- Evaluate public policies that impact the well-being of individuals, families, consumers, and communities.
- Plan, implement, and evaluate educational programs serving children, families, and consumers.

## Bachelor of Science in Applied Science in Family and Consumer Studies, Instructor Track

Dr. Abel Waithaka, Program Coordinator  
 (330) 941-2635  
 agwaithaka@ysu.edu

The family and consumer studies program is designed to provide an in-depth understanding of individuals and families across the life span and to prepare students to work in agencies serving children, families, and consumers. Students can create a unique program that reflects their career interests or graduate school goals. Students find employment in a variety of community agencies and businesses related to their areas of study.

The Family and Consumer Sciences Instructor track prepares students to teach in educational programs grade four through adult levels and meets the course requirements for the *Family and Consumer Sciences Career/Technical Teaching License* required in Ohio's schools.

The track includes 100 hours of supervised field work and one semester of student teaching in a secondary school. Graduates will be required to pass the examination for teachers in order to receive a teaching license.

For more information, visit the Human Ecology Department in Cushwa Hall 3325, or contact Dr. Waithaka.

<b>COURSE</b>	<b>TITLE</b>	<b>S.H.</b>
<b>General Education Requirements</b>		
Core Competencies		14
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	
Arts and Humanities		6
Natural Sciences (2 courses, one must include a lab)		7
Social Science (3 courses)		9
ECON 1501	Economics in Action	
or ECON 2610	Principles 1: Microeconomics	
SOC 1500	Introduction to Sociology	
PSYC 1560	General Psychology	
Social and Personal Awareness		6
FNUT 1551	Normal Nutrition	
PSYC 3758	Lifespan Development	
<b>Required Courses (36 s.h.)</b>		
HMEC 1550	Human Ecology Professions	1
FNUT 1512	Food Safety and Sanitation	1
FNUT 1553	Food Science and Management Principles	3
FNUT 1553L	Food Science and Management Principles Laboratory	1
MRCH 1506	Clothing and Image Development	3
CHFM 2633	Early Childhood: Integrating Development and Education	3
CHFM 3731	Individual and Family Development	3
CHFM 3750	Parent and Professional Relationships	3
CHFM 3718	Family Law	3
HMEC 3780	Consumer Economics	3
HMEC 4852	Family Resource Management	3
HMEC 4890	Communication of Contemporary Issues	3
HMEC 5893	Work and Family	3
HMEC 5892	Community Programming in Human Ecology	3
<b>Professional Education Curriculum (36 s.h.) - Requires Upper Division status in BCOE</b>		
EDFN 1501	Introduction to Education	3
EDFN 3708	Education and Society	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society	3
SED 3706	Principles of Teaching Adolescents	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
<b>Education Block Curriculum</b>		
EDFN 3710	Educational Assessment	3
HMEC 4800	Teaching in Family and Consumer Sciences	3
<b>Student Teaching Curriculum</b>		
SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
<b>Select 6 s.h. of Department Electives (Courses with prefixes CHFM, HMEC, FNUT, HMG, MRCH)</b>		

HMG 1500	Introduction to Hospitality Industry	3
MRCH 2625	The World of Fashion	3
MRCH 1510	Apparel Evaluation	3
MRCH 3764	Family Housing and Technology	3
CHFM 3718	Family Law	3
CHFM 3770	Wellness During the Early Childhood Years	3
FNUT 5862	Food and Culture	2
MRCH 3740L	Computer Applications for Textiles & Apparel Lab	3
HMG 4846	Event Management	3
HMEC 4875	Directed Individual Study	1-3

<sup>1</sup> A variety of MATH courses satisfies the MATH GE requirement. See your advisor for the correct one if not noted.

Course	Title	S.H.
<b>Year 1</b>		
HMEC 1550	Human Ecology Professions	1
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
MATH 2623	Quantitative Reasoning	3
PSYC 1560	General Psychology	3
SOC 1500	Introduction to Sociology	3
Natural Science with Lab		4
FNUT 1551	Normal Nutrition	3
<b>Semester Hours</b>		<b>28</b>
<b>Year 2</b>		
EDFN 1501	Introduction to Education	3
SPED 2630	Individuals with Exceptionalities in Society	3
FNUT 1512	Food Safety and Sanitation	1
FNUT 1553	Food Science and Management Principles	3
FNUT 1553L	Food Science and Management Principles Laboratory	1
MRCH 1506	Clothing and Image Development	3
CHFM 3731	Individual and Family Development	3
Arts and Humanities		3
Arts and Humanities		3
Natural Science		3
ECON 1501 or ECON 2610	Economics in Action or Principles 1: Microeconomics	3
<b>Semester Hours</b>		<b>29</b>
<b>Year 3</b>		
HMEC 3780	Consumer Economics	3
HMEC 4852	Family Resource Management	3
EDFN 3708	Education and Society	3
EDFN 3710	Educational Assessment	3
SED 3706	Principles of Teaching Adolescents	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
PSYC 3709	Psychology of Education	3
PSYC 3755	Child Development	3
PSYC 3758	Lifespan Development	3
CHFM 3750	Parent and Professional Relationships	3
CHFM 3718	Family Law	3
<b>Semester Hours</b>		<b>33</b>

<b>Year 4</b>		
HMEC 4890	Communication of Contemporary Issues	3
HMEC 5893	Work and Family	3
HMEC 5892	Community Programming in Human Ecology	3
HMEC 4800	Teaching in Family and Consumer Sciences	3
SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
Elective		3
Elective		3
<b>Semester Hours</b>		<b>30</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

Graduates in the family and consumer studies major will be able to:

- Use family science research and human systems theory to describe the internal dynamics of families and the interrelationships of individuals and families with their environments.
- Identify factors that influence human development across the life span.
- Apply appropriate technologies, critical-thinking, research methods, and communication skills to address significant family and consumer issues.
- Use concepts of resource development, management, and sustainability to evaluate individual, family, and community resource allocation practices.
- Analyze ethical questions that affect families and consumers.
- Relate to others with concern and respect for diversity of family forms, cultural variations among families, and individual differences.
- Follow professional and ethical standards in professional practice settings.
- Evaluate public policies that impact the well-being of individuals, families, consumers, and communities.
- Plan, implement, and evaluate educational programs serving children, families, and consumers.

## Associate of Applied Science in Dietetic Technician

Mrs. Amy Raabe, Program Coordinator  
asraabe@ysu.edu

Dietetic Technicians, Registered (DTRs), are trained in Food and Nutrition and are an integral part of health care and food service management teams. The associate degree coursework for dietetic technicians includes a variety of classes in food and nutrition sciences, food service systems management, and a range of general science courses. Dietetic Technicians, Registered work independently or on teams with Registered Dietitians in a variety of employment settings, including health care, business and industry, public health, food service, and research.

Upon completion of the DT program, graduates are issued a Verification Statement that confirms their eligibility to sit for the Commission on Dietetic Registration (CDR) examination for Dietetic Technicians. Successful completion of the exam allows the graduate to use "DTR" as the practice credential.

Admission to the DT program requires an application and meeting **Admission Criteria:**

GPA > 2.5 and "C or better grades" for the following courses:

- HMEC 1550 - Intro to Human Ecology Professions
- ENGL 1550 - Writing 1
- FNUT 1551 - Normal Nutrition

- BIOL 1551/1551L - Anatomy & Physiology 1 and Lab

Most of the required courses for the DT program can be applied to the BSAS programs in food and nutrition.

The associate degree program is accredited by:  
 The Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the American Dietetic Association  
 120 South Riverside Plaza, Suite 2000  
 Chicago, Illinois  
 1-800-877-1600

For more information, visit the Human Ecology Department in Cushwa 3325 or contact Mrs. Amy Raabe at 330-941-1823 or asraabe@ysu.edu

COURSE	TITLE	S.H.
<b>General Education Requirements - Basic Skills</b>		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	
Arts & Humanities elective		3
Social Sciences Requirements		
PSYC 1560	General Psychology	3
Natural Science Requirements		
CHEM 1505	Allied Health Chemistry 1	3
CHEM 1505L	Allied Health Chemistry 1 Laboratory	0
BIOL 1551	Anatomy and Physiology 1	3
BIOL 1551L	Anatomy 1 Laboratory for Health Professions	1
BIOL 1552	Anatomy and Physiology 2	4
BIOL 1552L	Anatomy and Physiology 2 Laboratory	0
<b>Other Accreditation Requirements</b>		
ACCT 1503	Elementary Accounting	3
or HMG 2603	Hospitality Managerial Accounting 1	
BIOL 1560	Microbiology for the Health Professions	2
BIOL 1560L	Microbiology Laboratory for Health Professions	1
COUN 2651	Foundations of Helping Skills for Human Ecology Professionals	2
or COUN 2650	Foundations of Helping Skills for Allied Health Professionals	
<b>Major Courses - C or better grade required</b>		
HMEC 1550	Human Ecology Professions	1
FNUT 1512	Food Safety and Sanitation	1
FNUT 1551	Normal Nutrition	3
FNUT 1553	Food Science and Management Principles	3
FNUT 1553L	Food Science and Management Principles Laboratory	1
FNUT 2603	Medical Nutrition Therapy 1	3
FNUT 2603L	Medical Nutrition Therapy 1 Lab	1
FNUT 2609L	Food Systems: Supervised Practice	3
FNUT 2610	Organization and Management	3
FNUT 2612	Food Systems: Operation, Production, and Service	3
FNUT 2612L	Food Systems: Operations, Production, and Service Laboratory	2
FNUT 2613L	Medical Nutrition Therapy Supervised Practice	4
FNUT 2628	Practicum in Dietetic Technology	3
FNUT 2652L	Nutrition Assessment Laboratory	1

Final grade of C or better required in all major courses. Courses cannot be taken Credit/No Credit.

Application forms available in the Department of Human Ecology.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
FNUT 1551	Normal Nutrition	3
FNUT 1553 & 1553L	Food Science and Management Principles and Food Science and Management Principles Laboratory	4
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
PSYC 1560	General Psychology	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
HMEC 1550	Human Ecology Professions	1
ENGL 1551	Writing 2	3
FNUT 2612 & 2612L	Food Systems: Operation, Production, and Service and Food Systems: Operations, Production, and Service Laboratory	5
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy 1 Laboratory for Health Professions	4
MATH 2623	Quantitative Reasoning	3
FNUT 1512	Food Safety and Sanitation	1
<b>Semester Hours</b>		<b>17</b>
<b>Summer</b>		
BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>6</b>
<b>Year 2</b>		
<b>Fall</b>		
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	3
FNUT 2603 & 2603L	Medical Nutrition Therapy 1 and Medical Nutrition Therapy 1 Lab	4
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
COUN 2651	Foundations of Helping Skills for Human Ecology Professionals	2
FNUT 2652L	Nutrition Assessment Laboratory	1
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
FNUT 2610	Organization and Management	3
FNUT 2609L	Food Systems: Supervised Practice	3
FNUT 2613L	Medical Nutrition Therapy Supervised Practice	4
ACCT 1503	Elementary Accounting	3
<b>Semester Hours</b>		<b>13</b>
<b>Summer</b>		
FNUT 2628	Practicum in Dietetic Technology	3
Arts & Humanities Elective		
<b>Semester Hours</b>		<b>3</b>
<b>Total Semester Hours</b>		<b>68</b>



## Learning Outcomes

At the completion of the dietetic technician program, graduates will

- Be able to practice as competent dietetic technicians.
- Meet the workforce needs for DTRs in the Mahoning Valley.
- Practice a high degree of professionalism.

## Associate of Applied Science in Early Childhood Associate Pre-K

Patrick O'Leary, Program Coordinator  
(330) 941-3343  
pmoleary@ysu.edu

This associate degree leads to Associate Licensure in Pre-Kindergarten Education. Graduates are qualified to teach in or manage licensed daycare and preschool programs, and they are eligible for *Associate Pre-kindergarten Teacher Licensure* after passing the Pre-k Praxis examination. Most of the coursework can be applied toward a bachelor's degree for Family and Consumer Science Instructor or Early Childhood Education. Within the framework of their required courses, students complete 300 hours of clinical/field work. This program normally requires four semesters of study averaging 15-18 hours per semester.

For more information, visit the Department of Human Ecology, Cushwa 3325 or call (330) 941-3344.

COURSE	TITLE	S.H.
General Education Requirements		
Basic Skills		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
A & H or NS Elective		3
PSYC 1560	General Psychology	3
Major Requirements		
HMEC 1550	Human Ecology Professions	1
CHFM 1514	Introduction to Early Childhood Education	3
CHFM 1530	Infants and Toddlers: Development and Care	3
SPED 2630	Individuals with Exceptionalities in Society	3
CHFM 2633	Early Childhood: Integrating Development and Education	3
CHFM 2650	Introduction to Assessment of Young Children	3
CHFM 2664	Managing Classroom Behavior and Staff Relationships in Early Childhood Settings	3
CHFM 2675	Integrated Curriculum for Prekindergarten	3
MUED 3722	Music in Early Childhood	3
CHFM 3733L	Practicum Preprimary Settings	3
ART 3737	Pre-K-4, Visual Arts Education	3
CHFM 3750	Parent and Professional Relationships	3
PSYC 3755	Child Development	3
CHFM 3770	Wellness During the Early Childhood Years	3
CHFM 3790	Directed Practice in PreK Education	4
CHFM 3790S	Directed Practice Seminar	2
<b>Total Semester Hours</b>		<b>63</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
CHFM 1514	Introduction to Early Childhood Education	3
ENGL 1550	Writing 1	3
HMEC 1550	Human Ecology Professions	1
PSYC 1560	General Psychology	3
ART 3737	Pre-K-4, Visual Arts Education <sup>1</sup>	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CHFM 1530	Infants and Toddlers: Development and Care	3
ENGL 1551	Writing 2	3
CHFM 2633	Early Childhood: Integrating Development and Education	3
PSYC 3755	Child Development	3
CHFM 3770	Wellness During the Early Childhood Years	3
<b>Semester Hours</b>		<b>15</b>
<b>Summer</b>		
CMST 1545	Communication Foundations <sup>2</sup>	3
Arts and Humanities Elective		3
<b>Semester Hours</b>		<b>6</b>
<b>Year 2</b>		
<b>Fall</b>		
SPED 2631	Intervention Strategies with Special Needs Children in Early Childhood <sup>1</sup>	3
CHFM 2650	Introduction to Assessment of Young Children	3
CHFM 2675	Integrated Curriculum for Prekindergarten	3
CHFM 3733L	Practicum Preprimary Settings	3
CHFM 3750	Parent and Professional Relationships	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CHFM 2664	Managing Classroom Behavior and Staff Relationships in Early Childhood Settings	3
MUED 3722	Music in Early Childhood	3
CHFM 3790	Directed Practice in PreK Education	4
CHFM 3790S	Directed Practice Seminar	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>63</b>

<sup>1</sup> One or two of these courses may be included in any of the semesters: ART 3737 Pre-K-4, Visual Arts Education, MUED 3722 Music in Early Childhood.

<sup>2</sup> May add General Education Requirements listed as possible summer courses to any of the four semesters

## Learning Outcomes

At the completion of the Pre-kindergarten program, graduates will be able to:

- Design and implement developmentally appropriate lessons.
- Involve families in learning.
- Assess a child's development in five developmental domains.
- Recognize and use ethical guidelines and professional standards related to early childhood practice.

# Bachelor of Science in Applied Science in Food and Nutrition Coordinated Program in Dietetics (Registration Eligible)

Dr. Jeanine Mincher  
(330) 941-3346  
jmincher@ysu.edu

The Coordinated Program in Dietetics (CPD) is an upper-division generalist dietetics program with an emphasis in community wellness. The program prepares students for professional practice and establishes eligibility for graduates to sit for the examination to become Registered Dietitians (RD) and Licensed Dietitians in the state of Ohio. During the five-semester program, each student spends a minimum of 1,200 supervised practice hours covering medical nutrition therapy, community nutrition and wellness, maternal and child, foodservice, and aging.

A community wellness emphasis has been identified as a need in the regional area that Youngstown State University serves. Graduates of the coordinated program in dietetics will be positioned to assume major roles in community health programs. The program is currently accredited through the Accreditation Council for Education in Nutrition and Dietetics (ACEND) within the Academy of Nutrition and Dietetics (AND).

Accreditation Council for Education in Nutrition and Dietetics (<http://www.eatright.org/ACEND>)  
120 South Riverside Plaza, Suite 2000  
Chicago, IL 60606-6995  
(312) 899-0040 Ext. 5400

Admission to the CPD is restricted since only 12 students can be accommodated. Satisfactory completion of a minimum of 63 semester hours (to qualify for junior status) is required before the student begins the program. Detailed information regarding criteria and procedures is available from the Department of Human Ecology. Students are accepted to the CPD in spring, and start the program during fall semester. The current closing date for applications is February 15 for the following fall semester.

Upon satisfactory completion of the CPD, graduates are issued a verification statement that confirms eligibility to take the Commission on Dietetic Registration (CDR) registration examination for dietitians. CPD graduates who pass the registration examination are entitled to use the RD credential to signify professional competence.

For more information, visit **Food and Nutrition Coordinated Program in Dietetics** (<http://www.ysu.edu/academics/bitonte-college-health-and-human-services/dietetics-programs>).

COURSE	TITLE	S.H.
General Education Requirements		
Basic Skills		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
MATH 2623	Quantitative Reasoning	3
Social & Personal Awareness		
FNUT 1551	Normal Nutrition	3
GERO 3745 or GERO 3703	Sociology of Health, Illness, and Healthcare Aging and Society	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
Arts & Humanities		

Elective		3
Elective		3
Natural Sciences Requirements		
CHEM 1505	Allied Health Chemistry 1	3
CHEM 1505L	Allied Health Chemistry 1 Laboratory	0
CHEM 1506	Allied Health Chemistry 2	3
CHEM 1506L	Allied Health Chemistry 2 Laboratory	0
BIOL 1551	Anatomy and Physiology 1	3
BIOL 1551L	Anatomy 1 Laboratory for Health Professions	1
BIOL 1552	Anatomy and Physiology 2	4
BIOL 1552L	Anatomy and Physiology 2 Laboratory	0
Additional Accreditation Requirements		
ACCT 1503 or HMG 2603	Elementary Accounting Hospitality Managerial Accounting 1	3
COUN 2651 or COUN 2650	Foundations of Helping Skills for Human Ecology Professionals Foundations of Helping Skills for Allied Health Professionals	2
BIOL 1560	Microbiology for the Health Professions	2
BIOL 1560L	Microbiology Laboratory for Health Professions	1
MGT 3725	Fundamentals of Management	3
Major Courses		
HMEC 1550	Human Ecology Professions	1
FNUT 1512	Food Safety and Sanitation	1
FNUT 1553	Food Science and Management Principles	3
FNUT 1553L	Food Science and Management Principles Laboratory	1
FNUT 2603	Medical Nutrition Therapy 1	3
FNUT 2603L	Medical Nutrition Therapy 1 Lab	1
FNUT 2612	Food Systems: Operation, Production, and Service	3
FNUT 2612L	Food Systems: Operations, Production, and Service Laboratory	2
FNUT 2652L	Nutrition Assessment Laboratory	1
CHFM 3731	Individual and Family Development	3
FNUT 3735	Nutritional Biochemistry	2
FNUT 3759	Advanced Nutrition	3
FNUT 3760	Medical Nutrition Therapy 2	3
FNUT 3760L	Medical Nutrition Therapy 2 Laboratory	2
FNUT 3760R	Medical Nutrition Therapy 2 Laboratory Recitation	2
FNUT 3761	Science of Nutrition in Exercise	3
FNUT 4802	Research Methods in Dietetics	2
FNUT 4802L	Research Methods in Dietetics Laboratory	1
FNUT 4810	Experimental Foods	2
FNUT 4810L	Experimental Foods Laboratory	1
FNUT 4858	Food Service Systems Management	4
FNUT 4858L	Food Systems Management Laboratory	3
FNUT 4860	Medical Nutrition Therapy 3	3
FNUT 4860L	Medical Nutrition Therapy 3 Lab	3
FNUT 4872	Maternal and Child Nutrition	2
FNUT 4872L	Maternal and Child Nutrition Laboratory	2
FNUT 4873	Nutrition and Aging	2
FNUT 4873L	Nutrition and Aging Laboratory	3
FNUT 4874	Community Nutrition and Wellness	3
FNUT 4874L	Community Nutrition and Wellness Laboratory	3
FNUT 4885	Practicum in Dietetics	4
FNUT 5862	Food and Culture	2
FNUT 5862L	Food and Cultures Laboratory	1

Course	Title	S.H.			
			FNUT 4802	Research Methods in Dietetics (F)	2
<b>Year 1</b>			<b>Semester Hours</b>		<b>15</b>
<b>Fall</b>			<b>Spring</b>		
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy 1 Laboratory for Health Professions	4	MGT 3725	Fundamentals of Management	3
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	3	FNUT 3761	Science of Nutrition in Exercise (S)	3
ENGL 1550	Writing 1	3	FNUT 4802L	Research Methods in Dietetics Laboratory (S)	1
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2	FNUT 4860	Medical Nutrition Therapy 3 (S)	3
HMEC 1550	Human Ecology Professions (F,S,X)	1	FNUT 4860L	Medical Nutrition Therapy 3 Lab (S)	3
SOC 1500	Introduction to Sociology	3	FNUT 5862 & 5862L	Food and Culture and Food and Cultures Laboratory (S)	3
<b>Semester Hours</b>			<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>			<b>Year 4</b>		
CHEM 1506 & 1506L	Allied Health Chemistry 2 and Allied Health Chemistry 2 Laboratory	3	<b>Fall</b>		
FNUT 1512	Food Safety and Sanitation	1	FNUT 4858	Food Service Systems Management (F)	4
ENGL 1551	Writing 2	3	FNUT 4858L	Food Systems Management Laboratory (F)	3
FNUT 1551	Normal Nutrition (F,S,X)	3	FNUT 4873	Nutrition and Aging (F)	2
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4	FNUT 4873L	Nutrition and Aging Laboratory (F)	3
PSYC 1560	General Psychology	3	SOC 3745 or GERO 3703	Sociology of Health, Illness, and Healthcare or Aging and Society	3
<b>Semester Hours</b>			<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>			<b>Spring</b>		
<b>Fall</b>			FNUT 4810	Experimental Foods (S)	2
CMST 1545	Communication Foundations	3	FNUT 4810L	Experimental Foods Laboratory (S)	1
FNUT 1553	Food Science and Management Principles (F,S)	3	FNUT 4874	Community Nutrition and Wellness (F)	3
FNUT 1553L	Food Science and Management Principles Laboratory (F,S)	1	FNUT 4874L	Community Nutrition and Wellness Laboratory (F)	3
MATH 2623 or STAT 2625	Quantitative Reasoning or Stat Lit and Crit Reasoning	3	FNUT 4872	Maternal and Child Nutrition (S)	2
COUN 2651	Foundations of Helping Skills for Human Ecology Professionals (F)	2	FNUT 4872L	Maternal and Child Nutrition Laboratory (S)	2
FNUT 2652L	Nutrition Assessment Laboratory (F,S)	1	SOC 3745 or SOC 3703	Sociology of Health, Illness, and Healthcare or Aging and Society	3
AH Elective		3	<b>Semester Hours</b>		<b>16</b>
<b>Semester Hours</b>			<b>Summer</b>		
<b>Spring</b>			FNUT 4885	Practicum in Dietetics (X)	4
BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3	<b>Semester Hours</b>		<b>4</b>
ACCT 2602	Financial Accounting	3	<b>Total Semester Hours</b>		<b>132</b>
FNUT 2603	Medical Nutrition Therapy 1 (F,S)	3	F – Offered in the fall semester S – Offered in the spring semester X – Offered in the summer semester		
FNUT 2603L	Medical Nutrition Therapy 1 Lab (F,S)	1	<b>Learning Outcomes</b>		
FNUT 2612 & 2612L	Food Systems: Operation, Production, and Service and Food Systems: Operations, Production, and Service Laboratory (F,S)	5	At the completion of the coordinated program in dietetics, graduates will be able to:		
FNUT 3735	Nutritional Biochemistry (S)	2	<ul style="list-style-type: none"> <li>• Communicate effectively.</li> <li>• Effectively integrate biochemical concepts into dietetics practice.</li> <li>• Effectively integrate physiological concepts into dietetics practice.</li> <li>• Effectively apply theory from the social sciences to dietetics practice.</li> <li>• Effectively present results of research study.</li> <li>• Effectively apply concepts from food, nutrition, management, and health care systems to dietetics practice.</li> <li>• Practice effectively as members of an interdisciplinary team.</li> <li>• Demonstrate competency in medical nutrition therapy.</li> <li>• Demonstrate competency in foodservice management practice.</li> <li>• Demonstrate competency in community nutrition practice.</li> </ul>		
<b>Semester Hours</b>					
<b>Year 3</b>					
<b>Fall</b>					
CHFM 3731	Individual and Family Development (F,S,X)	3			
FNUT 3759	Advanced Nutrition (F)	3			
FNUT 3760	Medical Nutrition Therapy 2 (F)	3			
FNUT 3760R	Medical Nutrition Therapy 2 Laboratory Recitation (F)	2			
FNUT 3760L	Medical Nutrition Therapy 2 Laboratory (F)	2			

# Bachelor of Science in Applied Science in Food and Nutrition Didactic Program in Dietetics

Dr. Zara Rowlands, Program Coordinator  
(330) 941-2021  
zcsah@ysu.edu

This baccalaureate program is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics (AND). The Didactic Program in Dietetics at YSU is currently accredited, 07/01/2010 - 06/30/2020.

Academy of Nutrition and Dietetics  
120 South Riverside Plaza  
Suite 2000, Chicago, Illinois 60606-6995  
www.eatright.org

Toll Free Phone: 800-877-1600  
Additional Phone: 312-899-0040

Students may select the Didactic Program in Dietetics as a major only after they have met admission criteria. These criteria include grades of "C" or better in the following courses and a minimum cumulative GPA of 2.5:

COURSE	TITLE	S.H.
HMEC 1550	Human Ecology Professions	1
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
FNUT 1551	Normal Nutrition	3
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy 1 Laboratory for Health Professions	4
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	3

Students who have not yet been admitted to the DPD program but are working toward that end may enroll as "Pre-dietetics-DPD" majors.

Upon satisfactory completion of the DPD, students are issued a verification statement confirming eligibility to apply for an ACEND accredited Dietetic Internship (DI) or other pre-professional practice program such as an Individualized Supervised Practice Program (ISPP).

Completion of the DI, or an approved pre-professional practice program, establishes eligibility for the Commission on Dietetic Registration (CDR) credentialing examination for dietitians. Successful completion of the examination results in nationally recognized credential as a Registered Dietitian (RD).

Didactic program in dietetics (DPD) graduates may also take the registration examination for dietetic technicians and become Dietetic Technicians, Registered (DTR).

For more information, contact Dr. Zara Rowlands at zcsah@ysu.edu or call (330) 941-2021

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
MATH 2623	Quantitative Reasoning	3

Arts and Humanities		6
Natural Science Requirements		
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	3
CHEM 1506 & 1506L	Allied Health Chemistry 2 and Allied Health Chemistry 2 Laboratory	3
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy 1 Laboratory for Health Professions	4
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
Social Science Requirements		
PSYC 1560	General Psychology	3
SOC 1500	Introduction to Sociology	3
Social and Personal Awareness		
37__ SPA elective		
FNUT 1551	Normal Nutrition	3
<b>Major Requirements</b>		
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
FNUT 1512	Food Safety and Sanitation	1
HMEC 1550	Human Ecology Professions	1
FNUT 1553 & 1553L	Food Science and Management Principles and Food Science and Management Principles Laboratory	4
FNUT 2603 & 2603L	Medical Nutrition Therapy 1 and Medical Nutrition Therapy 1 Lab	4
FNUT 2612 & 2612L	Food Systems: Operation, Production, and Service and Food Systems: Operations, Production, and Service Laboratory	5
FNUT 2652L	Nutrition Assessment Laboratory	1
CHFM 3731	Individual and Family Development	3
FNUT 3735	Nutritional Biochemistry	2
FNUT 3759	Advanced Nutrition	3
FNUT 3760	Medical Nutrition Therapy 2	3
FNUT 3761	Science of Nutrition in Exercise	3
FNUT 4802	Research Methods in Dietetics	2
FNUT 4810 & 4810L	Experimental Foods and Experimental Foods Laboratory	3
FNUT 4858	Food Service Systems Management	4
FNUT 4860	Medical Nutrition Therapy 3	3
FNUT 4874	Community Nutrition and Wellness	3
FNUT 4872	Maternal and Child Nutrition	2
FNUT 4873	Nutrition and Aging	2
HMEC 4890	Communication of Contemporary Issues	3
FNUT 4895	DPD Capstone	3
FNUT 5862 & 5862L	Food and Culture and Food and Cultures Laboratory	3
FNUT 4802L	Research Methods in Dietetics Laboratory	1
<b>Additional Accreditation Required Courses</b>		
ACCT 1503	Elementary Accounting	3
BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3
COUN 2651	Foundations of Helping Skills for Human Ecology Professionals	2
MGT 3725	Fundamentals of Management	3
MATC 1501	Medical Terminology	3
<b>Suggested-Other Electives</b>		
Not required, but match well with the major		
SPAN 1550	Elementary Spanish	

SOC 3745	Sociology of Health, Illness, and Healthcare	
GEOG 2626	World Geography	
PSYC 3700	Social Psychology	
PHLT 1531	Fundamentals of Public Health	
PHIL 2628	Business Ethics	

**Total Semester Hours** 119

Minimum upper-division hours (3700 or higher) = 48; total hours for degree = 120

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy 1 Laboratory for Health Professions (F,S,X)	4
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory (F,S,X)	3
ENGL 1550	Writing 1 (F,S,X)	3
FNUT 1551	Normal Nutrition (F,S,X)	3
HMEC 1550	Human Ecology Professions (F,S)	1
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2

**Semester Hours** 16

<b>Spring</b>		
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory (F,S, X)	4
CHEM 1506 & 1506L	Allied Health Chemistry 2 and Allied Health Chemistry 2 Laboratory (F,S,X)	3
ENGL 1551	Writing 2 (F,S,X)	3
PSYC 1560	General Psychology (F,S,X)	3
MATH 2623 or STAT 2625	Quantitative Reasoning (F,S,X) or Stat Lit and Crit Reasoning	3

**Semester Hours** 16

<b>Year 2</b>		
<b>Fall</b>		
ACCT 1503 or HMG 2603	Elementary Accounting (F) or Hospitality Managerial Accounting 1	3
COUN 2651	Foundations of Helping Skills for Human Ecology Professionals (F)	2
FNUT 1553 & 1553L	Food Science and Management Principles and Food Science and Management Principles Laboratory (F,S)	4
MATC 1501	Medical Terminology (F,S)	3
FNUT 2652L	Nutrition Assessment Laboratory (F,S)	1
BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions (F,S,X)	3

**Semester Hours** 16

<b>Spring</b>		
CMST 1545	Communication Foundations (F,S,X)	3
FNUT 1512	Food Safety and Sanitation (F,S)	1
FNUT 2603 & 2603L	Medical Nutrition Therapy 1 and Medical Nutrition Therapy 1 Lab (F,S)	4
FNUT 2612	Food Systems: Operation, Production, and Service (F,S)	3

FNUT 2612L	Food Systems: Operations, Production, and Service Laboratory (F,S)	2
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FNUT 3735	Nutritional Biochemistry (S)	2
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**Semester Hours** 15

### Year 3

<b>Fall</b>		
CHFM 3731	Individual and Family Development (F,S,X)	3
FNUT 3759	Advanced Nutrition (F)	3
FNUT 3760	Medical Nutrition Therapy 2 (F)	3
FNUT 4802	Research Methods in Dietetics (F)	2
SOC 1500	Introduction to Sociology	3

**Semester Hours** 14

<b>Spring</b>		
MGT 3725	Fundamentals of Management (F,S,X)	3
FNUT 3761	Science of Nutrition in Exercise (S)	3
FNUT 4860	Medical Nutrition Therapy 3 (S)	3
FNUT 5862 & 5862L	Food and Culture and Food and Cultures Laboratory (S)	3
Arts and Humanities Elective		3
FNUT 4802L	Research Methods in Dietetics Laboratory	1

**Semester Hours** 16

### Year 4

<b>Fall</b>		
FNUT 4858	Food Service Systems Management (F)	4
FNUT 4873	Nutrition and Aging (S)	2
FNUT 4895	DPD Capstone	3
HMEC 4890	Communication of Contemporary Issues (F,S)	3
Arts and Humanities or Social and Personal Awareness Elective		3

**Semester Hours** 15

<b>Spring</b>		
FNUT 4810 & 4810L	Experimental Foods and Experimental Foods Laboratory (S)	3
FNUT 4872	Maternal and Child Nutrition (S)	2
FNUT 4874	Community Nutrition and Wellness (F)	3
Other Elective		3

**Semester Hours** 11

**Total Semester Hours** 119

F – Offered in the fall semester S – Offered in the spring semester X – Offered in the summer semester

## Learning Outcomes

- Achieve comprehension/competence in nutrition care process with specific emphasis on standardized nutrition diagnoses, i.e., use the nutrition care process to make decisions, identify nutrition-related problems, and determine and evaluate nutrition interventions, including medical nutrition therapy, disease prevention, and health promotion.
- Demonstrate understanding of dietetics evidence-based practice principles; locate, interpret, evaluate and use professional literature to make ethical, evidence-based practice decisions.
- Demonstrate competence in food preparation and the modification and evaluation of recipes, menus, and food products for diverse groups.
- Be able to identify different health care delivery systems and current reimbursement issues, policies, and regulations on food and nutrition services.

# Bachelor of Science in Applied Science in Hospitality Management

(330) 941-3344

The hospitality management program provides students with the knowledge and skills needed to be successful and competent in this fast-growing field, not only in the United States, but globally.

Students may earn an associate degree (AAS- 2 year) and/or a bachelor's degree (BSAS - 4 year) with a major in Hospitality Management. The Associate of Applied Science degree articulates seamlessly with the baccalaureate degree. The Bachelor of Science in Applied Science program exposes students to advanced management concepts in lodging, food and beverage, or event management.

For more information, visit the Human Ecology Department at Cushwa Hall 3325

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		14
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	
Arts and Humanites		6
Elective		
PHIL 2625	Introduction to Professional Ethics	
or PHIL 2628	Business Ethics	
Natural Sciences		7
Elective		
Elective		
Social and Personal Awareness		6
FNUT 1551	Normal Nutrition	
Elective		
Social Sciences		9
ECON 2610	Principles 1: Microeconomics	
ECON 2630	Principles 2: Macroeconomics	
PSYC 1560	General Psychology	
<b>Support Courses</b>		
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
<b>Major Requirements</b>		
Must earn a C or better, Courses cannot be taken Credit/No Credit		
HMEC 1550	Human Ecology Professions	1
HMG 1500	Introduction to Hospitality Industry	3
FNUT 1553 & 1553L	Food Science and Management Principles and Food Science and Management Principles Laboratory	4
HMG 2603 or ACCT 1503	Hospitality Managerial Accounting 1 Elementary Accounting	4
FNUT 1512	Food Safety and Sanitation	1
FNUT 2612 & 2612L	Food Systems: Operation, Production, and Service and Food Systems: Operations, Production, and Service Laboratory	5
HMG 2622	Hotel Management	3
HMG 2691	Hospitality Cooperative Work Experience	3

HMG 3719	Facilities Management	4
CHFM 3731	Individual and Family Development	3
HMG 3745	Hospitality Marketing and Sales	4
HMG 4804	Hospitality Industry Law and Ethics	3
HMEC 4836	Internship	4
HMEC 4890	Communication of Contemporary Issues	3
HMG 4896	Hospitality Operations Management	3
<b>Select 6 upper-division electives</b>		6
<b>Concentration in Human Ecology or Minor</b>		
Select (A) Concentration in Human Ecology courses or (B) a Minor:		18
A. Concentration in Human Ecology		
Select 12 s.h. in CHFM, HMG, FNUT, HMEC or MRCH coursework.		
Select 6 s.h. upper-division electives.		
B. Minor (at least 18 s.h.)		
<b>Total Semester Hours</b>		<b>120</b>
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
HMG 1500	Introduction to Hospitality Industry	3
Social and Personal Awareness Elective		3
FNUT 1553 & 1553L	Food Science and Management Principles and Food Science and Management Principles Laboratory	4
PSYC 1560	General Psychology	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 2623	Quantitative Reasoning	3
FNUT 1551	Normal Nutrition	3
CMST 1545	Communication Foundations	3
HMEC 1550	Human Ecology Professions	1
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
FNUT 1512	Food Safety and Sanitation	1
FNUT 2612	Food Systems: Operation, Production, and Service	3
FNUT 2612L	Food Systems: Operations, Production, and Service Laboratory	2
HMG 2603	Hospitality Managerial Accounting 1	4
MGT 2604	Legal Environment of Business 1	3
ECON 2610	Principles 1: Microeconomics	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ECON 2630	Principles 2: Macroeconomics	3
Natural Science + Lab		4
PHIL 2625 or PHIL 2628	Introduction to Professional Ethics or Business Ethics	3
HMG 2691	Hospitality Cooperative Work Experience	3
HMG 2622	Hotel Management	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
HMG 3719	Facilities Management	4

MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
HMEC Concentration or Minor Electives		6
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
CHFM 3731	Individual and Family Development	3
Arts and Humanities Elective		3
Natural Science Elective		3
HMEC Concentration or Minor Electives		3
<b>Semester Hours</b>		<b>12</b>
<b>Year 4</b>		
<b>Fall</b>		
HMG 4804	Hospitality Industry Law and Ethics	3
HMG 3745	Hospitality Marketing and Sales	4
HMEC 4890	Communication of Contemporary Issues	3
HMEC Concentration or Minor Electives		6
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
HMG 4896	Hospitality Operations Management	3
HMEC 4836	Internship	4
HMEC Concentration or Minor Electives		6
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

At the completion of the hospitality management program, graduates will be able to:

- Demonstrate appropriate customer and guest service practices, skills and behaviors required during customer involvement that contribute to customer satisfaction.
- Demonstrate the knowledge of fundamental principles of leadership and the ability to work with a group of people to formulate rational solutions to hospitality operational problems.
- Demonstrate quality food preparation and presentation skills, using appropriate health, safety, sanitation and environmental protection procedures in hospitality.
- Demonstrate the use and knowledge of current technologies in the hospitality industry. Explain key factors in the design, development and maintenance of the industry facilities and apply relevant technologies in ways that enhance organizational performance.
- Demonstrate the ability to market hospitality goods and services effectively and responsibly.
- Analyze legal, ethical, and socio-political considerations affecting organizations to make management decisions.
- Demonstrate use of accepted accounting practice and sound financial management.

# Bachelor of Science in Applied Science in Merchandising: Fashion and Interiors

### Coordinator

Dr. Priscilla Gitimu, Ph.D.

Room: 3524 Cushwa Hall

Phone: 330-941-1822

Email: pngitimu@ysu.edu

### Mission Statement of the Merchandising: Fashion & Interiors program

The Merchandising: Fashion and Interiors major prepares students for a broad range of careers related to the fashion and interiors industries. The program exposes students to an interdisciplinary and a global perspective to the business side of fashion apparel and home fashion industries. The students acquire a Bachelors of Applied Science degree which is designed to provide the skills and knowledge for apparel and home goods industries, these skills include; merchandising, retailing, distribution, computer applications in textiles and apparel, product development and appraisal skills. Students choose to do more of fashion or more of interior courses depending on their career aspirations. The program exposes students to rigorous course work in fashion and interiors courses. Students also complete courses in marketing, management, human ecology, and other support courses. The program serves undergraduates who aspire to be professionals in the fashion apparel industry and interior industry. Graduates find employment mostly in retailing of apparel, furnishings, accessories and personal care products.

### What is Merchandising?

Merchandising is a specialized management function within the fashion, textiles and home interiors industries. Merchandisers are responsible for selection of materials, collaborating with the production team and meeting market requirements. The job demands knowledge of fashion trends, textures, materials and colors on one hand and understanding of market demand and the production processes on the other. Individuals who are assertive, flexible, and resourceful, who like to work with people, and who can assume responsibility, make quick decisions, and think clearly have the traits necessary for successful careers in fashion merchandising.

### Internship requirements

Merchandising students must complete at least 3 semester hours of Internship credit.

### Minor

- Merchandising majors often select minors in Marketing, Management, Journalism, Communications, Art, or Photography. A minor should be selected from an area of personal or career interest.
- There is a minor in fashion for students who have some interest in fashion. A fashion minor is a great complement to numerous career fields because fashion clothing serves a basic human need.

### FIT- Fashion Institute of Technology - Visiting Student program

The YSU Merchandising program has an articulation agreement with the Fashion Institute of Technology (FIT) in New York. Interested students can attend FIT for one academic year after completing 30 hours of GER credits at YSU and have 3.00 GPA. Participating students then come back to YSU to complete YSU residency requirement in the MRCH program and will end up with a BSAS MRCH degree from YSU and an Associate from FIT. If you are interested in this program route, please consult very early with Dr. Priscilla Gitimu, the FIT liaison at YSU.

### Career Opportunities

Graduates can pursue careers as:

- Buyers
- Department managers
- Merchandise managers
- Store managers
- Store owners
- Sales representatives
- Sales managers
- Merchandisers
- Merchandise allocators
- Merchandise planners
- Merchandise analysts
- Marketing directors
- Fashion directors

- Wardrobe consultants
- Personal Shoppers

Check the Dictionary of Occupational Titles under section 141 for additional related careers.

**Potential Employment Settings**

- Retail Department and Specialty Stores
- Apparel manufacturers
- Advertising agencies
- Apparel design studios and workrooms
- Textile and Findings manufacturers
- Fashion forecasting firms
- Retail business and apparel
- Industry publications

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
<b>Basic Skills</b> 14		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	
<b>Arts and Humanites</b> 6		
ART 1540	Masterpieces of World Art	
or ART 1541	Survey of Art History 1	
or ART 1542	Survey of Art History 2	
PHIL 2625	Introduction to Professional Ethics	
or PHIL 2628	Business Ethics	
<b>Natural Science Elective (Choose one CHEM with a lab and a NS Elective)</b> 6		
CHEM 1500 & 1500L	Chemistry in Modern Living and Chemistry in Modern Living Laboratory	
or CHEM 1505/1505L	Allied Health Chemistry 1	
or CHEM 1515/1515L	General Chemistry 1	
<b>Social Science Electives</b> 9		
SOC 1500	Introduction to Sociology	
PSYC 1560	General Psychology	
ECON 2610	Principles 1: Microeconomics	
<b>Social and Personal Awareness</b> 6		
FNUT 1551	Normal Nutrition	
SPA Elective 3700 level		
<b>Required Courses (34 s.h.):</b>		
HMEC 1550	Human Ecology Professions	1
MRCH 1506	Clothing and Image Development	3
MRCH 2625	The World of Fashion	3
MRCH 3705	Fashion Textiles	3
MRCH 3713	Merchandise Buying	3
MRCH 3740L	Computer Applications for Textiles & Apparel Lab	3
MRCH 4870	Global Fashion Economy	3
MRCH 4877	History of Fashion	3
MRCH 4880	Merchandising Management	3
CHFM 3731	Individual and Family Development	3
HMEC 4836	Internship	3
HMEC 4890	Communication of Contemporary Issues	3
<b>Select one of the two courses (3 s.h.):</b> 3		

MRCH 3730	Social Psychology of Clothing and Appearance	
MRCH 3764	Family Housing and Technology	
<b>Select two of the following lower-division courses (6 s.h.):</b>		6
MRCH 1508	Apparel Production	
MRCH 1510	Apparel Evaluation	
MRCH 2661	Fundamentals of Interior Design	
MRCH 2663	Materials and Methods	
<b>Select two courses of the following upper-division courses (6 s.h.):</b>		6
MRCH 3715	Fashion Promotion and Fashion Show Production	
MRCH 3745	Product Line Development	
MRCH 3760	Visual Merchandising	
MRCH 3795	Fashion Industry Tour	
MRCH 4879	History of Furnishings and Interiors	
<b>Required Support Courses (18 s.h.):</b> <sup>1</sup>		18
CSIS 1514	Business Computer Systems	
MGT 2604	Legal Environment of Business 1	
MGT 3725	Fundamentals of Management	
MKTG 3703	Marketing Concepts and Practice	
MKTG 3709	Retail Marketing	
ACCT 1503	Elementary Accounting	
or ACCT 2602	Financial Accounting	
<b>Electives</b>		12
Elective		
Elective		
Elective		
Elective		

<sup>1</sup> 12 s.h. of elective coursework needed to meet the 120 s.h. required for the degree. Selecting a minor will meet this requirement, but a minor is not required.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
PSYC 1560	General Psychology	3
CSIS 1514	Business Computer Systems	3
ART 1540	Masterpieces of World Art	3
MRCH 1506	Clothing and Image Development	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
HMEC 1550	Human Ecology Professions	1
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
MATH 2623	Quantitative Reasoning	3
SOC 1500	Introduction to Sociology	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
FNUT 1551	Normal Nutrition (FNUT 1543 - 1 s.h.)	3
or FNUT 1543	or Personal Nutrition	
MRCH 1508	Apparel Production	3
ECON 2610	Principles 1: Microeconomics	3
PHIL 2625	Introduction to Professional Ethics	3



A & H elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MRCH 2625	The World of Fashion	3
MGT 2604	Legal Environment of Business 1	3
ACCT 1503 or ACCT 2602	Elementary Accounting or Financial Accounting	3
SPA Elective - 3700 level		3
MRCH lower level course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
MRCH 3705	Fashion Textiles	3
MRCH 3730 or MRCH 3764	Social Psychology of Clothing and Appearance or Family Housing and Technology	3
MKTG 3703	Marketing Concepts and Practice	3
MRCH 3713	Merchandise Buying	3
MRCH Upper division elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MRCH 3740L	Computer Applications for Textiles & Apparel Lab	3
MKTG 3709	Retail Marketing	3
MGT 3725	Fundamentals of Management	3
CHFM 3731	Individual and Family Development	3
MRCH Upper division elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
MRCH 4877	History of Fashion	3
HMEC 4836	Internship	3
HMEC 4890	Communication of Contemporary Issues	3
MRCH 1510	Apparel Evaluation	3
MRCH 3745	Product Line Development	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MRCH 4870	Global Fashion Economy	3
MRCH 4880	Merchandising Management	3
MRCH 3715	Fashion Promotion and Fashion Show Production	3
MRCH 3760 or MRCH 3795	Visual Merchandising or Fashion Industry Tour	3
MRCH lower division elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

<sup>1</sup> **Students who elect FNUT 1551 Normal Nutrition to meet SPA requirement are not required to take FNUT 1543 Personal Nutrition in the major and will need one more elective hour to reach 120 credits.**

## Learning Outcomes

At the completion of the Merchandising: Fashion and Interiors program, graduates will be able to:

- Generate effective solutions to problems in manufacturing and marketing.
- Interpret the needs and wants of target customers.
- Develop a financially sound product line.
- Integrate and apply merchandising principles in workplace settings.

- Evaluate product quality and serviceability.

## Minor in Fashion

For advising on the Minor in Fashion, please contact Dr. Priscilla Gitimu at [pngitimu@ysu.edu](mailto:pngitimu@ysu.edu)

COURSE	TITLE	S.H.
<b>Required Courses</b>		
MRCH 1506	Clothing and Image Development	3
MRCH 2625	The World of Fashion	3
Select four of the following:		12
MRCH 3715	Fashion Promotion and Fashion Show Production	3
MRCH 3740L	Computer Applications for Textiles & Apparel Lab (P)	3
MRCH 3760	Visual Merchandising	3
MRCH 4877	History of Fashion	3
MRCH 3730	Social Psychology of Clothing and Appearance (P)	3
MRCH 3705	Fashion Textiles (P)	3
Total Hours		18

## Department of Kinesiology and Sport Science

(330) 941-3654

The goals of the Department of Kinesiology and Sport Science are to improve motor performance, develop health related lifetime fitness for the university community, and prepare students for related professions. These goals are achieved by promoting and integrating scientific research related to kinesiology and sport science as presented through focused programs of study and outreach services.

Students interested in majoring in exercise science should consult with an advisor in the Department of Kinesiology and Sport Science or call (330) 941-3654.

## Important Notice

Finger printing, a criminal background check, and drug testing may be required as a condition for working with a variety of sites used by programs offered in this department. Some sites used by programs offered in the department require that a person have no felony convictions and have passed a drug test within the past year. Any student unable to meet these site requirements may not be able to complete their degree from the department. If you have questions concerning these requirements, please see an advisor in the department.

## General Education Courses

The department offers one course that satisfies general education requirements. KSS 1500 Physical Activity Core Concepts may be applied in the Social and Personal Awareness domain. Please note that in order for KSS 1500 Physical Activity Core Concepts to count in the SPA domain, students must take any two KSS Activity Classes (p. 433) in addition to KSS 1500 Physical Activity Core Concepts. These courses do not have to be taken concurrently.

## Elective Courses

Activity classes may count for General Education credit and may count as elective credit. Please refer to the paragraph above for general education information. For a complete listing of activity courses, see the activity course listings in the Undergraduate Catalog.

It is suggested that students with preexisting medical conditions confer with their physician prior to enrolling in activity classes. Students with physical

disabilities are urged to see their physician, or the nurse in the Student Health Services office, to review activities which might be appropriate. Most activity classes can be adapted to one's personal abilities and students are encouraged to discuss this with the instructor. Students with disabilities are encouraged to focus on their physical abilities and consider the social and physical benefits that accrue from physical activity. If a disabled student finds only one appropriate activity class, permission may be requested from the department chair (Beeghly Center 307) to take the same class twice for credit.

Veterans who have served at least one full year can receive activity class credit for service.

Members of the men's or women's varsity teams may receive activity class credit through enrollment in KSS 1549 Varsity Competition. This class may be repeated one time per year for each sport in which an athlete is participating. However, only one KSS 1549 Varsity Competition course can count toward the General Education requirement.

Students must provide their own clothing for activity classes, and this attire must be appropriate to the activity. In addition, students who wish to use the locker facilities, must bring their own lock and towel for use during activity classes. Most of the other equipment for activity classes is supplied by the department (a lab fee will be charged in some courses).

For more information, visit the **Department of Kinesiology and Sport Science** (<http://www.yсу.edu/academics/bitonte-college-health-and-human-services/exercise-science-major>).

#### Professor

**Frank J. Bosso**, Ph.D., Professor

**Yongung Kwon**, Ph.D., Assistant Professor

**Sara Michaliszyn**, Ph.D., Assistant Professor

**Nicole Mullins**, Ph.D., Professor

**Jennifer Pintar**, Ph.D., Professor

**Jessica Wallace**, Ph.D., Assistant Professor

#### Instructor

**Sean-Michael Doty**, M.Ed., Instructor

## Majors

- B.S. in Applied Science in Exercise Science (p. 437)
- B.S. in Applied Science in Exercise Science - Graduate Prep Track (p. 438)
- B.S. in Applied Science in Exercise Science - MAT Track (p. 439)

## Minor

- Wellness (p. 441)

## Master's Degree

- Master of Athletic Training (p. 656)

### KSS 1500 Physical Activity Core Concepts 1 s.h.

Essential concepts that document the relationship between physical activity and maintaining optimal health. Personal and social implications of physical inactivity are also explored. Two KSS activity courses must be taken in addition to this course to satisfy the requirements for GER credit.

### KSS 1502 Volleyball 1 s.h.

Basic rules and fundamental skills of volleyball including serves, bump, overhead pass, and block.

### KSS 1507 Volleyball 2 1 s.h.

Intermediate-to-advanced volleyball skills including diving, rolling, and various team offensive and defensive strategies.

**Prereq.:** KSS 1502.

### KSS 1508 Group Cycling 1 s.h.

Introduction to improving fitness levels through group cycling. The emphasis in this class will be on improving cardiovascular fitness through indoor stationary cycling bicycles. All fitness levels are welcomed and will acquire fitness benefits.

### KSS 1509 Meditation 1 s.h.

Overview of practical meditation theory, with diverse practices culled from the world's wisdom inheritance presented as guided meditation experiences. Historical perspective, along with relevant findings of current neuroscience research which support the efficacy of meditation are considered. The practices develop heightened awareness skills, whether practiced sitting, standing, walking, or supine.

### KSS 1510 Archery 1 s.h.

Techniques of target archery. Selection, care, and repair of equipment.

### KSS 1511 Badminton 1 s.h.

Skills, mechanics, and rules of badminton.

### KSS 1512 Bowling 1 s.h.

Fundamentals of bowling the straight ball. Equipment selection, correction of errors, and scoring. For beginning bowlers. The bowling lanes are located off campus. Transportation to the lanes is not provided.

### KSS 1513 Bowling 2 1 s.h.

Intermediate bowling. Refinement of bowling skills and use of the hook delivery. Tournament planning, team strategy, and competition.

**Prereq.:** KSS 1512.

### KSS 1514 Fencing 1 1 s.h.

Fundamentals of foil fencing. Methods of attack and parry, and elementary bouting and judging.

### KSS 1515 Fencing 2 1 s.h.

Intermediate strategies and techniques of foil fencing and bouting.

**Prereq.:** KSS 1514.

### KSS 1516 Boxing for Beginners 2 s.h.

This course consists of learning how to properly workout like a boxer. Students will be trained to use the proper equipment, and how to stand, move, punch, and train like a boxer preparing to competitively box. Students will NOT be actually boxing another competitor.

### KSS 1519 Racquetball 1 s.h.

Racquetball rules and techniques for singles and doubles play. Basic strategy and skill development.

### KSS 1520 Golf 1 1 s.h.

Fundamental skills of golf. Includes grip, stance, swing patterns, and putting as well as rules of course play.

### KSS 1521 Golf 2 1 s.h.

Intermediate golf. Refinement of swing patterns, methods of instruction, correction of errors. Emphasis on the use of various clubs and types of shots.

**Prereq.:** KSS 1520.

### KSS 1522 Tennis 1 1 s.h.

Fundamental skills of tennis including forehand and backhand drives and service. Basic rules, strategy, and method.

### KSS 1523 Tennis 2 1 s.h.

Theory and practice of intermediate-to-advanced tennis skills and play.

**Prereq.:** KSS 1522.

### KSS 1524 Physical Fitness and Exercise Program 1 s.h.

Discussion and participation in activities designed to develop and improve the health-related aspects of physical fitness including weight and stress control.

### KSS 1526 Marksmanship 1 s.h.

The safety and practice of handling firearms. Target shooting in prone, kneeling and standing positions.

**KSS 1528 Advanced Physical Fitness and Exercise Programs 1 s.h.**

Discussion of and participation in strenuous activities designed to develop and improve the health- and performance-related aspects of physical fitness.

**KSS 1529 Recreational Games 1 s.h.**

Fundamentals, skills, techniques, strategy, and rules of racquetball, paddle tennis, table tennis, shuffleboard, and other recreational games.

**KSS 1530 Learn to Swim 1 s.h.**

Introduction to swimming and survival skills, floating, drown-proofing, basic swim strokes (side, elementary back, and front crawl), beginning diving, and simple aquatic games. This course is designed for the student who cannot swim; it is not open to swimmers.

**KSS 1531 Aquatics 2 1 s.h.**

Intermediate swimming. Introduction to back crawl, breaststroke and butterfly. Techniques in underwater swimming; use of mask, snorkel and fins. Elementary lifesaving skills and refinement of basic springboard diving.

**Prereq.:** HPES 1530.

**KSS 1534 Fitness Swimming 1 s.h.**

Utilization of freestyle swimming stroke to improve/maintain fitness across the lifespan. Content includes stroke mechanics, turning technique, and swim training program design to meet individual fitness and health goals.

**Prereq.:** Ability to swim for 250 yards.

**KSS 1537 Aquatic Exercise 1 s.h.**

Fitness through aquatic conditioning exercises tailored to the individual needs of the student. Open to swimmers and non-swimmers.

**KSS 1544 Step Aerobics 1 s.h.**

Rhythmic exercise and conditioning activities performed to music, utilizing a step platform as the foundation of the workout. Designed to improve cardio-respiratory endurance and flexibility. Emphasis on understanding the five basic components of fitness and basic principles and techniques involved in step training.

**KSS 1545 Fold and Square Dance 1 s.h.**

European and Mediterranean folk dances, American Square dances, and mixers. Beginning materials and practice.

**KSS 1547 Flexibility and Core Training 1 s.h.**

When performed properly, flexibility can reduce injuries, help recover from injuries, correct muscle imbalances, and recover from exercise. Stretching has also been shown to promote relaxation and stress reduction. This course will cover flexibility utilizing flexbands. In addition, core work and light resistance training will be explored.

**KSS 1548 Aerobic Dance 1 s.h.**

Rhythmic exercises and conditioning activities performed to music. Designed to improve cardiovascular fitness, flexibility, and general muscle tone.

**KSS 1549 Varsity Competition 1 s.h.**

Credit may be obtained through competition in varsity athletic programs.

**Prereq.:** Consent of coach.

**KSS 1550 Pilates 1 s.h.**

Instruction in principles of body alignment and posture and participation as it pertains to fundamental Pilates techniques.

**KSS 1551 Student Athlete Experience 1 s.h.**

This course will provide an orientation to student athletes on understanding the demands related to life as a student athlete. This course will focus on various topics related to life-skills such as time management and study skills, campus and community leadership, sports nutrition, professionalism and etiquette, Title IX and sexual harassment, personal financial management and budgeting, and career building and interview skills.

**KSS 1552 Yoga 1 s.h.**

Instruction in principles of meditation, body alignment and posture, and participation as it pertains to fundamental yoga techniques.

**KSS 1553 Yoga 2 1 s.h.**

Builds on the groundwork of fundamental postures, breathing, present moment awareness practices, and various methods for removal of mental and physical tensions introduced in KSS 1552. Practices are drawn from the inheritance of Yoga (Hatha and Raja), for further skill development for managing health and vitality of mind and body.

**Prereq.:** KSS 1552 or consent of instructor.

**KSS 1554 Fitness Walking 1 s.h.**

Information on the benefits of walking for fitness. Health advantages, appropriate conditioning, pace, warm-up and cool-down. Practical experience in the skills needed to achieve success in developing and adhering to a walking program.

**KSS 1555 Jogging 1 s.h.**

Holistic approach to the theory and practice of jogging with emphasis on the physiological benefits.

**KSS 1556 Racquetball 2 1 s.h.**

Advanced racquetball techniques, strategy, conditioning, and mental preparation for singles, doubles, and tournament play. Emphasis on the use of various advanced shots, positioning, and officiating.

**Prereq.:** KSS 1519.

**KSS 1557 Weight Training 1 s.h.**

Introduction to progressive resistive exercise for men and women. Topics include strength training, types of equipment, exercise techniques, circuit training, competitive weightlifting, body building, and injury prevention.

**KSS 1558 Physical Fitness for Life 2 s.h.**

Participation in exercise and physical activities, and identification of resources and assessment instruments utilized in developing an individualized, well-rounded, effective, lifelong physical fitness program. One hour lecture, two hours lab.

**KSS 1559 Aerobic Conditioning Activities 2 s.h.**

Analyses and practices in activities designed to develop and improve cardiovascular endurance. Such activities include, but are not limited to, aquatics, fitness walking and jogging. One hour lecture, two hours lab.

**Prereq.:** Exercise science major, or Physical education major.

**KSS 1560 Resistance Training 2 s.h.**

Concepts and applications of progressive resistance exercise. Emphasis on advanced principles and techniques for developing muscular strength and endurance for fitness and athletic performance. Two hours lab.

**Prereq.:** major in exercise science or permission of instructor.

**KSS 1563 Rock Climbing 1 s.h.**

Instruction and participation in fundamental rock climbing techniques that include safely constructing anchor systems, employing belay methods, equipment selection, and beginning climbing skills. A weekend, off-campus field-experience is required.

**KSS 1564 Bicycling 1 s.h.**

Instruction and practice in bicycling skills, techniques, and procedures necessary for intermediate or long trips. Students must provide their own three-, five-, or ten-speed bicycle.

**KSS 1565 Self Defense 1 s.h.**

The defensive techniques of Judo and Aikido designed to counter attacks with a knife, club, gun or bare fist. Balance, control, safety, falling.

**KSS 1566 Judo 1 s.h.**

Introduction to the history, philosophy and techniques of Judo. Fundamental techniques include falls, hand and leg throws, grappling, various holds and joint locks.

**KSS 1568 Taekwondo/Karate 1 s.h.**

An introduction to the history, philosophy and techniques of taekwondo/ karate. Fundamental techniques include: stances, kicks, punches, and forms.

**KSS 1569 Taekwondo Karate 2 1 s.h.**

This course consists of an advanced refinement of taekwondo/karate forms and techniques as well as the enhancement and application of their techniques. Students will be presented with advanced skills to further their knowledge of the history and traditions of this martial art. This course builds upon the basic knowledge learned from KSS 1568 (taekwondo/karate I).

**Prereq.:** KSS 1568.

**KSS 1588 Selected Activities in Kinesiology and Sport Science 1-2 s.h.**

Knowledge of and practice in a particular area of dance, fitness, or sport. Activity is announced each time the course is offered. May be repeated up to 4 s.h. with change in topic.

**KSS 1589 Scientific Basis of Fitness 2 s.h.**

Introduction to components of physical fitness and their physiological basis. Role of exercise in prevention of cardiovascular and other hypokinetic diseases. Participation and application of training principles in a variety of fitness activities. Selection and proper use of exercise equipment. One hour lecture, two hours lab.

**Prereq.:** Physical education major.

**KSS 1590 Foundations of Fitness 3 s.h.**

Students will learn the fundamentals of fitness as it relates to lifestyle choices and health. Discussion and participation in activities designed to develop and improve the health-related aspects of physical fitness including weight and stress control will be used to develop a personal fitness program through personal goals.

**KSS 1595 Introduction to Kinesiology and Sport Science 2 s.h.**

Introduction to physical education, exercise science and related professions. Includes exploration of the general concepts, goals, aims, objectives, professional organizations, scholarly literature, sub-disciplines within the field, and career employment opportunities.

**KSS 2605 Sports First Aid and Injury Prevention 3 s.h.**

Basic injury prevention, evaluation, and emergency care. Certification in ARC Standard First Aid and Adult CPR. Basic wrapping and strapping techniques used with common sports injuries. Two hours lecture, two hours lab.

**Prereq.:** Exercise science major, Wellness minor, or consent of instructor.

**KSS 2615 Methods of Teaching Rhythmic Aerobic Activity 2 s.h.**

Rhythm and movement fundamentals related to aerobic dance and step aerobics. Methods and materials of teaching rhythmic aerobic activity culminating in practical teaching experience in the classroom. One hour lecture, two hours lab.

**Prereq.:** KSS 1589.

**KSS 2618 Physical Education Practicum 2 s.h.**

A supervised experience in a minimum of 14 physical activity sub-disciplines (e.g., sports management, sporting goods industry, not-for-profit organizations, physical activity administration, physical activity skill instruction, etc.) under the direction of a qualified individual.

**Prereq.:** Physical education major and KSS 1595.

**KSS 2620 Exercise Equipment Management 1 s.h.**

Factors to consider when purchasing new or used exercise equipment, equipment repair and preventive maintenance procedures, and equipment-related risk management.

**Prereq.:** Permission of instructor.

**KSS 2625 Pedagogical Aspects of Exercise Science 3 s.h.**

Effective instructional practices and development of organizational skills and characteristics required for teaching in exercise programs. Two hours lecture, two hours lab.

**Prereq.:** KSS 1559 and KSS 1595.

**KSS 2630 Lifeguard Training 1 s.h.**

Water rescue, preventive lifeguarding techniques, emergency procedures. Red Cross certificate granted upon satisfactory completion of all requirements.

**Prereq.:** Ability to swim 300 yards continuously; tread water for 2 minutes.

**KSS 2631 Water Safety Methods for Instructors 2 s.h.**

Techniques for teaching and supervising swimming, emergency water safety, and basic water safety. Introduction to infant and preschool aquatic programs. A water safety instructor's certificate granted upon satisfactory completion of all requirements.

**Prereq.:** Current lifeguard training certificate or emergency water safety certificate.

**KSS 2632 Skin and Scuba Diving 2 s.h.**

Basic skin-diving with the use of mask, fins, and snorkel. Scuba diving skills with the use of tank and regulator. Emphasis on diving physics, physiology, lifesaving, first aid, and safety skills related to skin and scuba diving. Two hours lecture, two hours lab. Student must furnish mask, fins, and snorkel.

**KSS 2635 Open Water Scuba Diving 1 s.h.**

Practical experiences in physiological and psychological stress, underwater navigation, effects of hypothermia, decompression, repetitive diving, and rescue techniques. Students completing this course receive basic scuba certification. Five hours lecture, ten hours lab per semester.

**Prereq.:** KSS 2632.

**KSS 2637 Skin, Scuba and Openwater Diving 3 s.h.**

Basic scuba and skin-diving skills with use of tank and regulator. Practical experiences in physiological and psychological stress, effects of hypothermia, decompression, and rescue techniques related to repetitive diving. Students completing course receive basic openwater certification. Students must furnish mask, fins, and snorkel. Two days openwater field experience. Two hours lecture, two hours lab.

**KSS 2672 Biomechanics 3 s.h.**

Knowledge and methods of mechanics as they apply to the structure and function of the living human system. Muscular structure and function in relation to physical movement, analysis of fundamental movements. Includes the physical characteristics of the human body and principles of mechanical physics. Two hours lecture. Two hours lab.

**Prereq.:** BIOL 1552, BIOL 1552L or BIOL 1545, BIOL 1545L.

**KSS 2697 Camping 2 s.h.**

The specific skills and problems encountered in camping: shelter, clothing, food, transportation, and site selection. Two hours lab.

**KSS 2699 Sport in American Culture 3 s.h.**

Sport in American culture from the colonial period to the present as it relates to such areas as education, literature, film and drama, minorities, politics, professional sport, religion and urbanization.

**KSS 3700 Exercise Testing and Prescription 1 4 s.h.**

Introductory exercise leadership skills including exercise testing and prescription, and design of safe and effective programs. Includes a minimum of 30 hours of field experience in exercise testing, leadership, observation, and career exploration. Content based on American College of Sports Medicine objectives.

**Prereq.:** KSS 2625.

**KSS 3705 Statistics Research in Exercise Science 3 s.h.**

Scientific methods in exercise science including research design and statistical analyses. Experience with statistical software and understanding published research. Two hours lecture, two hours lab.

**Prereq.:** MATH 1510 or Level 45 on Math Placement Test.

**KSS 3710 Physiology of Exercise 4 s.h.**

Acute responses and chronic adaptations of the body to physiological demands of physical activity. Topics related to the optimization of performance in sport and exercise include neuromuscular and cardiorespiratory function, energy production and utilization, and environmental influences.

**Prereq.:** CHEM 1515, and BIOL 1552 or BIOL 3730; or consent of instructor.

**Concurrent with:** KSS 3710L.

**KSS 3710L Physiology of Exercise Laboratory 1 s.h.**

Experiments and basic laboratory procedures in the field of exercise physiology.

**Concurrent with:** KSS 3710.

**KSS 3720 Kinesiology and Applied Anatomy 4 s.h.**

Muscular structure and function in relation to physical movement; analysis of fundamental movements.

**Prereq.:** PHYS 1501 or PHYS 1506.

**KSS 3720L Kinesiology and Applied Anatomy Laboratory 1 s.h.**

Analysis and basic laboratory procedures in relation to physical movement and biomechanics. Two hours lab.

**Prereq.:** PHYS 1501.

**Concurrent with:** KSS 3720.

**KSS 3725 Mindfulness 2 s.h.**

Mindfulness is a state of active, open attention on the present and the practice of being aware moment-to-moment. Students will learn techniques of mindfulness. Topics include breath awareness, sitting meditation, body scanning, walking meditation, eating meditation, yoga, loving kindness and yoga nidra.

**Prereq.:** PSYC 1560 or KSS 1590.

**KSS 3730 Exercise Testing and Prescription 2 4 s.h.**

Intermediate exercise testing, exercise prescription based on metabolic calculations and program development for special populations. Supervised field experience in exercise leadership involving 5-8 hours per week. Content based on American College of Sports Medicine objectives.

**Prereq.:** KSS 3700 and KSS 3710.

**KSS 3750 Principles of Coaching 2 s.h.**

The scientific, psychological, and management aspects of coaching. Includes ethics and management responsibilities, personnel management, community relations, conditioning, and other related topics.

**Prereq.:** Junior standing.

**KSS 3760 Strength Training and Conditioning 3 s.h.**

Scientific principles, concepts, and adaptations to resistance exercise. Practical application of lifting and spotting technique, testing procedures, program design, and organization and administration of the strength and conditioning facility. Two hours lecture, two hours lab.

**Prereq.:** KSS 1560 and KSS 3710.

**KSS 3765 Athletic Training 1 2 s.h.**

Practical and theoretical aspects of the prevention of athletic injuries. Includes supplies, wrapping and strapping, protective equipment. Emphasizes prevention, evaluation, and emergency care. One hour lecture, two hours lab.

**Prereq.:** KSS 1595 and KSS 2605.

**KSS 4803 Issues and Trends in Exercise Science 1 s.h.**

Current issues and trends and their impact on exercise science and the general public as they relate to the American College of Sports Medicine's behavioral objectives for various professional certificates.

**Prereq.:** 64 s.h. or permission of instructor.

**KSS 4805 Administration of Exercise Programs 3 s.h.**

Provides an overview of legal, management, and marketing skills necessary to implement exercise related wellness programs. Requires development of business plan including facility design and equipment selection.

**Prereq.:** KSS 3700.

**KSS 4810 Exercise Testing and Prescription 3 4 s.h.**

Clinical exercise tests (electrocardiography, pulmonary function, submaximal/maximal cardiorespiratory tests) and exercise prescription (cardiovascular, pulmonary, diabetes, stress, cancer, PVD and hypertension). Supervised experience in clinical exercise facilities nine hours during the semester. Content based on American College of Sports Medicine objectives. 4 s.h.

**Prereq.:** KSS 3705, KSS 3730, and KSS 3710.

**KSS 4850 Exercise Testing and Prescription for the Health Professions 3 s.h.**

Introduction to exercise testing and prescription for healthy adults as well as clinical (cardiovascular, pulmonary, diabetes, obesity, osteoporosis, arthritis) and other special (pregnancy, children, elderly) populations. For Health Professions majors. Not applicable to the major in Exercise Science. Two hours lecture, two hours lab.

**Prereq.:** Senior standing or permission of instructor.

**KSS 4855 Organization and Administration of Kinesiology and Sport Science Programs 3 s.h.**

Organizational patterns and administrative methods in activities, including instructional programs, intramurals and recreation.

**Prereq.:** 20 s.h. in major.

**KSS 4865 Athletic Training 2 2 s.h.**

Advanced techniques of athletic training with emphasis on evaluation, treatment and rehabilitation of athletic injuries. Topics include application of therapeutic modalities, reconditioning programs, and the role of the athletic trainer in sports medicine. One hour lecture, two hours lab.

**Prereq.:** KSS 3765.

**KSS 4870 Exercise and Aging for Health Professions 3 s.h.**

For majors in Gerontology/Health Professions who work with older adults in exercise/physical activity programs. Emphasis on physical aspects/limitations of aging, exercise testing, prescription, and programs for the elderly. Not applicable to the major in Exercise Science.

**Prereq.:** Senior standing or permission of instructor.

**KSS 4875 Exercise Counseling and Behavioral Strategies 4 s.h.**

Exercise Counseling and Behavioral Strategies Evidence-based theories and domains geared toward fostering change, growth, and self-actualization in exercise. The scientific foundations of basic exercise counseling and behavioral strategies that enable effective wellness coaching are explored.

**Prereq.:** Junior standing.

**KSS 4880 Internship 8 s.h.**

A culminating experience in an approved fitness or sports-related setting under the direct supervision of a qualified individual and coordinated by a supervising faculty member. Requires 400 hours to obtain 8 s.h. May be taken concurrently with KSS 4875.

**Prereq.:** Completion of Exercise Science core requirements through KSS 4810.

**KSS 4884 Physical Education Internship 12 s.h.**

A culminating experience in an approved sport or fitness-related facility or place of business under the direct supervision of a site and university supervisor. Capstone course. Requires 600 contact hours to obtain 12 s.h.

**Prereq.:** Completion of all KSS major core courses.

**KSS 4888 Selected Topics in Kinesiology and Sport Science 1-3 s.h.**

In-depth study of special subject matter within the field of physical education. Topic announced each time course is offered. May be repeated for a maximum of 6 s.h. with change in topic.

**Prereq.:** 72 s.h. or consent of instructor.

**KSS 4888I Selected Topics in Kinesiology and Sport Science Fitness Tourism 1-3 s.h.**

In-depth study of special subject matter within the field of physical education. Topic announced each time course is offered. May be repeated for a maximum of 6 s.h. with change in topic.

**Prereq.:** 72 s.h. or consent of instructor.

**KSS 4890 Undergraduate Research 1-3 s.h.**

Research participation under the direction and guidance of a full-time faculty member. Provides the advanced student with research experience in HPES. May be repeated to a maximum of six s.h. Junior standing or permission of instructor.

**KSS 4898 Seminar KSS 1 s.h.**

Special and current problems in KSS.

**Prereq.:** 72 semester hours.

**KSS 4899 Physiology of Exercise for Physical Education 2 s.h.**

Acute responses and chronic adaptations of the body to the physiological demands of physical activity. Prime focus is application to the teaching of physical education.

**Prereq.:** HEPE 3766.

**KSS 4899L Physiology of Exercise for Physical Education Laboratory 1 s.h.**

Experiments and basic laboratory procedures in the field of exercise physiology.

**Concurrent with:** KSS 4899.

**KSS 5994 Workshop in PE Athletic 1-3 s.h.**

A workshop designed to examine contemporary topics in the field.

**KSS 6930 Lab Instrumentation 2 s.h.**

A laboratory course designed to provide instruction and practical experience in operating laboratory equipment for the measurement of physiological parameters in the human. Two hours lecture and two hours laboratory per week.

**Prereq.:** HEPE 4899 Physiology of Exercise for Physical Education or equivalent.

**KSS 6935 Biodynamics and Human Performance 2 s.h.**

The physiology of human exercise responses to various stress conditions such as environmental, psychosocial, disease, and maximal performance.

**Prereq.:** HEPE 4899 or equivalent.

**KSS 6940 Exercise Program Administration 3 s.h.**

General guidelines for managing, developing, delivering and evaluating exercise programs with specific behavioral objectives for program directors, exercise leaders, and exercise technicians as established by the American College of Sports Medicine.

**Prereq.:** KSS 3710 or permission of instructor.

**KSS 6990 Independent Study 1-3 s.h.**

Individual study and projects under faculty supervision. May be repeated to a maximum of three semester hours.

**Prereq.:** Permission of instructor and department chair.

# Bachelor of Science in Applied Science in Exercise Science

The Department of Kinesiology Sport Science offers a Bachelor of Science in Applied Science degree with a major in exercise science. This program prepares students for certification through the American College of Sports Medicine (ACSM) and the National Strength & Conditioning Association (NSCA) as health/fitness specialists.

As such, graduates will be able to design safe and effective exercise prescriptions and conduct individual exercise programs, fitness testing, and health education for low- to moderate-risk individuals, individuals with controlled diseases, and individuals in special populations (e.g. pregnancy, hypertension, diabetes mellitus).

Graduates are employed in a wide variety of settings that include:

- medically based wellness programs
- corporate wellness programs
- strength and conditioning
- clinical rehabilitation programs such as cardiac rehabilitation
- public and private fitness clubs

In addition, the program serves as a strong foundation for students wishing to pursue advanced degrees in the field of exercise science or enter professional schools such as:

- Athletic Training
- Physical Therapy
- Occupational Therapy
- Physician Assistant
- Medical school
- Graduate degree in Exercise Science/Physiology

## Admission

Application forms and other information for formal admittance to the Department of Kinesiology Sport Science may be obtained in the department

office, Room 307, Beeghly Center. This program can be completed in eight semesters if students average 16 hours per semester.

For individual semester advisement, including general education, minor, and additional requirements, see assigned departmental advisor.

For more information, visit **Exercise Science - B.S. in Applied Science** (<http://www.yzu.edu/academics/bitonte-college-health-and-human-services/exercise-science-major>).

The following are KSS courses required in the major for this degree:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		9
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		5-7
MATH 1513	Algebra and Transcendental Function	
OR		
MATH 1510	College Algebra	
Arts and Humanities		6
Natural Sciences		8
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy 1 Laboratory for Health Professions	
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	
Social Science		6
PSYC 1560	General Psychology	
Social and Personal Awareness		6
FNUT 1551	Normal Nutrition	
General Education Elective		2
KSS 1595	Introduction to Kinesiology and Sport Science (FYE course)	2
<b>Major Requirements</b>		54
KSS 1559	Aerobic Conditioning Activities	2
KSS 1560	Resistance Training	2
KSS 1500	Activity Elective	1
KSS 2605	Sports First Aid and Injury Prevention	3
KSS 2625	Pedagogical Aspects of Exercise Science	3
KSS 3700	Exercise Testing and Prescription 1	4
KSS 3705	Statistics Research in Exercise Science	3
KSS 3710	Physiology of Exercise	4
KSS 3710L	Physiology of Exercise Laboratory	1
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 3720L	Kinesiology and Applied Anatomy Laboratory	1
KSS 3730	Exercise Testing and Prescription 2	4
KSS 3760	Strength Training and Conditioning	3
KSS 4805	Administration of Exercise Programs	3
KSS 4810	Exercise Testing and Prescription 3	4
KSS 4875	Exercise Counseling and Behavioral Strategies	4
KSS 4880	Internship	8
Required support course; credit hours do not count as part of the major:		7
PHYS 1506	Physics for Health Care	3
CHEM 1515	General Chemistry 1	4
CHEM 1515L	General Chemistry 1 Laboratory	0
Electives		13-15

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
KSS 1559	Aerobic Conditioning Activities	2
MATH 1513	Algebra and Transcendental Function	5
ENGL 1550	Writing 1	3
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy 1 Laboratory for Health Professions	4
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
KSS 1560	Resistance Training	2
KSS 1595	Introduction to Kinesiology and Sport Science	2
ENGL 1551	Writing 2	3
Arts & Humanities Elective		3
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>17</b>
<b>Year 2</b>		
<b>Fall</b>		
KSS 2625	Pedagogical Aspects of Exercise Science	3
KSS 2605	Sports First Aid and Injury Prevention	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
PSYC 1560	General Psychology	3
<b>Semester Hours</b>		<b>13</b>
<b>Spring</b>		
KSS Activity Elective		1
KSS 3700	Exercise Testing and Prescription 1	4
KSS 3705	Statistics Research in Exercise Science	3
FNUT 1551	Normal Nutrition	3
PHYS 1506	Physics for Health Care	3
<b>Semester Hours</b>		<b>14</b>
<b>Year 3</b>		
<b>Fall</b>		
KSS 3710	Physiology of Exercise	4
KSS 3710L	Physiology of Exercise Laboratory	1
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 3720L	Kinesiology and Applied Anatomy Laboratory	1
KSS 4805	Administration of Exercise Programs	3
Elective		2
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
KSS 3730	Exercise Testing and Prescription 2	4
KSS 3760	Strength Training and Conditioning	3
Arts & Humanities Elective		3
Social Science Elective		3
Social & Personal Awareness Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
KSS 4810	Exercise Testing and Prescription 3	4
Elective		3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>13</b>

<b>Spring</b>		
KSS 4880	Internship	8
KSS 4875	Exercise Counseling and Behavioral Strategies	4
Elective		3
Elective		3
<b>Semester Hours</b>		<b>18</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

The student learning outcomes for the BSAS in exercise science are as follows:

- 1) Students will demonstrate knowledge and skills in health, fitness and performance assessment
- 2) Students will demonstrate skills in risk factor and health risk identification and the ability to prescribe and implement exercise safely in healthy individuals, special populations (i.e. older adults) and individuals with controlled cardiovascular, pulmonary, and metabolic diseases and other clinical populations.
- 3) Students will demonstrate competency in effectively educating, exercise counseling and using behavioral strategies in individuals regarding lifestyle modification.
- 4) Students will demonstrate competency in the legal and professional tasks related to the field
- 5) Students will demonstrate knowledge of implementing management policies related to the field

## Bachelor of Science in Applied Science Exercise Science - Graduate Track

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		<b>9</b>
<b>Core Competencies</b>		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
<b>Mathematics Requirement</b>		<b>5-7</b>
MATH 1513	Algebra and Transcendental Function	
or		
MATH 1510 & MATH 1511	College Algebra and Trigonometry	
<b>Arts and Humanities</b>		<b>6</b>
<b>Natural Sciences</b>		<b>9</b>
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	
PHYS 1501	Fundamentals of Physics 1	
PHYS 1501L	Fundamentals of Physics Laboratory 1	
<b>Social Sciences</b>		<b>6</b>
PSYC 1560	General Psychology	
<b>Social &amp; Personal Awareness</b>		<b>6</b>
FNUT 1551	Normal Nutrition	
<b>General Education Elective</b>		<b>2</b>
KSS 1595	Introduction to Kinesiology and Sport Science (FYE course)	

**Required Courses (54 s.h.)**

KSS 1559	Aerobic Conditioning Activities	2
KSS 1560	Resistance Training	2
HPES 15XX Activity Elective		
KSS 2605	Sports First Aid and Injury Prevention	3
KSS 2625	Pedagogical Aspects of Exercise Science	3
KSS 3700	Exercise Testing and Prescription 1	4
KSS 3705	Statistics Research in Exercise Science	3
KSS 3710	Physiology of Exercise	4
KSS 3710L	Physiology of Exercise Laboratory	1
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 3720L	Kinesiology and Applied Anatomy Laboratory	1
KSS 3730	Exercise Testing and Prescription 2	4
KSS 3760	Strength Training and Conditioning	3
KSS 4805	Administration of Exercise Programs	3
KSS 4810	Exercise Testing and Prescription 3	4
KSS 4875	Exercise Counseling and Behavioral Strategies	4
KSS 4880	Internship	8
Required support courses (9 s.h.)		
BIOL 3705	Introduction to Human Gross Anatomy	4
BIOL 3705L	Introduction to Human Gross Anatomy Laboratory	0
BIOL 3730	Human Physiology	4
BIOL 3730L	Human Physiology Laboratory	1
Additional recommended graduate prep courses. Check your specific graduate program requirements.		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory <sup>1</sup>	4
PHYS 1502	Fundamentals of Physics 2 <sup>1</sup>	3
PHYS 1502L	Fundamentals of Physics Laboratory 2	1

<sup>1</sup> Not required for MAT at YSU.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
KSS 1559	Aerobic Conditioning Activities	2
MATH 1513	Algebra and Transcendental Function	5
ENGL 1550	Writing 1	3
A&H Elective		3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
KSS 1560	Resistance Training	2
KSS 1595	Introduction to Kinesiology and Sport Science	2
ENGL 1551	Writing 2	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
<b>Semester Hours</b>		<b>15</b>

<b>Year 2</b>		
<b>Fall</b>		
KSS 2625	Pedagogical Aspects of Exercise Science	3

KSS 2605	Sports First Aid and Injury Prevention	3
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
PSYC 1560	General Psychology	3
KSS 1500-Level Activity Elective		1
FNUT 1551	Normal Nutrition	3

**Semester Hours 17**

<b>Spring</b>		
KSS 3700	Exercise Testing and Prescription 1	4
KSS 3705	Statistics Research in Exercise Science	3
BIOL 3730	Human Physiology	4
BIOL 3730L	Human Physiology Laboratory	1
PHYS 1501	Fundamentals of Physics 1	4
PHYS 1501L	Fundamentals of Physics Laboratory 1	1

**Semester Hours 17**

<b>Year 3</b>		
<b>Fall</b>		
KSS 3710	Physiology of Exercise	4
KSS 3710L	Physiology of Exercise Laboratory	1
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 3720L	Kinesiology and Applied Anatomy Laboratory	1
KSS 4805	Administration of Exercise Programs	3
BIOL 3705	Introduction to Human Gross Anatomy	4

**Semester Hours 17**

<b>Spring</b>		
KSS 3730	Exercise Testing and Prescription 2	4
KSS 3760	Strength Training and Conditioning	3
A&H Elective		3
SS Elective		3
SPA Elective		3

**Semester Hours 16**

<b>Year 4</b>		
<b>Fall</b>		
KSS 4810	Exercise Testing and Prescription 3	4
Elective above 3700-Level		3
Elective		3
Elective		3
Elective		3

**Semester Hours 16**

<b>Spring</b>		
KSS 4850	Exercise Testing and Prescription for the Health Professions	8
KSS 4875	Exercise Counseling and Behavioral Strategies	4

**Semester Hours 12**

**Total Semester Hours 126**

# Bachelor of Science in Applied Science Exercise Science - MAT Track

## Standard Curriculum:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		
ENGL 1550	Writing 1	3



ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
<b>Mathematics Requirement</b>		5-7
MATH 1513	Algebra and Transcendental Function	
OR		
MATH 1510 & MATH 1511	College Algebra and Trigonometry	
<b>Arts and Humanities</b>		6
<b>Natural Sciences</b>		9
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	
PHYS 1501	Fundamentals of Physics 1	
<b>Social Sciences</b>		6
PSYC 1560	General Psychology	
<b>Social and Personal Awareness</b>		6
FNUT 1551	Normal Nutrition	
<b>General Education Elective</b>		2
KSS 1595	Introduction to Kinesiology and Sport Science (FYE Course)	
<b>Required Courses (54 s.h.)</b>		
KSS 1559	Aerobic Conditioning Activities	2
KSS 1560	Resistance Training	2
KSS 15XX	Activity Elective	1
KSS 2605	Sports First Aid and Injury Prevention	3
KSS 2625	Pedagogical Aspects of Exercise Science	3
KSS 3700	Exercise Testing and Prescription 1	4
KSS 3705	Statistics Research in Exercise Science	3
KSS 3710	Physiology of Exercise	4
KSS 3710L	Physiology of Exercise Laboratory	1
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 3720L	Kinesiology and Applied Anatomy Laboratory	1
KSS 3730	Exercise Testing and Prescription 2	4
KSS 3760	Strength Training and Conditioning	3
KSS 4805	Administration of Exercise Programs	3
KSS 4810	Exercise Testing and Prescription 3	4
KSS 4875	Exercise Counseling and Behavioral Strategies	4
KSS 4880	Internship	8
<b>Required support course. Credit hours do not count as part of the major (13 s.h.)</b>		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
BIOL 3705	Introduction to Human Gross Anatomy	4
BIOL 3705L	Introduction to Human Gross Anatomy Laboratory	0
BIOL 3730	Human Physiology	4
BIOL 3730L	Human Physiology Laboratory	1
Requires an additional 60 credit hours during the senior year upon acceptance to the MAT program		30
Total Semester Hours: 120 - 122		

### 3 + 2 Curriculum

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
KSS 1500-Level	Activity Elective	1
MATH 1513	Algebra and Transcendental Function	5

ENGL 1550	Writing 1	3
CMST 1545	Communication Foundations	3
KSS 1595	Introduction to Kinesiology and Sport Science	2
KSS 1559	Aerobic Conditioning Activities	2
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
KSS 1560	Resistance Training	2
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGL 1551	Writing 2	3
KSS 2625	Pedagogical Aspects of Exercise Science	3
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
<b>Semester Hours</b>		<b>16</b>

<b>Year 2</b>		
<b>Fall</b>		
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
PHYS 1501	Fundamentals of Physics 1	4
PHYS 1501L	Fundamentals of Physics Laboratory 1	1
KSS 3700	Exercise Testing and Prescription 1	4
PSYC 1560	General Psychology	3
A&H Elective		3
<b>Semester Hours</b>		<b>19</b>

<b>Spring</b>		
BIOL 3730	Human Physiology	4
BIOL 3730L	Human Physiology Laboratory	1
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 3720L	Kinesiology and Applied Anatomy Laboratory	1
FNUT 1551	Normal Nutrition	3
KSS 2605	Sports First Aid and Injury Prevention	3
KSS 3705	Statistics Research in Exercise Science	3
<b>Semester Hours</b>		<b>19</b>

<b>Year 3</b>		
<b>Fall</b>		
KSS 3710	Physiology of Exercise	4
KSS 3710L	Physiology of Exercise Laboratory	1
A&H Elective		3
KSS 4875	Exercise Counseling and Behavioral Strategies	4
KSS 3730	Exercise Testing and Prescription 2	4
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
KSS 4810	Exercise Testing and Prescription 3	4
KSS 3760	Strength Training and Conditioning	3
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	4
SS Elective		3
SPA Elective		3
<b>Semester Hours</b>		<b>17</b>

<b>Year 4</b>		
<b>Fall</b>		
<b>Graduate level courses will begin in year four.</b>		
MAT 6900	Basic Athletic Training Laboratory	1
MAT 6910	Clinical Practicum 1	4

MAT 6915	Evaluation and Management of Lower Extremity Injuries	4
MAT 5865	Functional Human Gross Anatomy	4
<b>Semester Hours</b>		<b>13</b>

**Spring**

MAT 6935	Athletic Training Organization and Administration	3
MAT 6920	Therapeutic Modalities	4
MAT 6925	Evaluation and Management of Upper Extremity Injuries	4
MAT 6930	Clinical Practicum 2	4

**Students receive BSAS at end of year four.**

<b>Semester Hours</b>		<b>15</b>
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**Year 5****Summer**

MAT 6905	Psychosocial Aspects of Athletic Injuries	2
MAT 6950	Evidence-Based Practice/Research	3
MAT 6965	Advanced Perspectives	2
<b>Semester Hours</b>		<b>7</b>

**Fall**

MAT 6940	Therapeutic Exercise	4
MAT 6945	General Medical Conditions	3
MAT 6960	Clinical Practicum 3	4
MAT 6985	Capstone Project 1	2
<b>Semester Hours</b>		<b>13</b>

**Spring**

MAT 6970	Pharmacology	3
MAT 6975	Advanced Seminar	3
MAT 6980	Clinical Practicum 4	4
MAT 6990	Capstone Project 2	2

**Students receive MAT at end of year five.**

<b>Semester Hours</b>		<b>12</b>
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<b>Total Semester Hours</b>		<b>163</b>
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## Minor in Wellness

COURSE	TITLE	S.H.
Required		
FNUT 1551	Normal Nutrition	3
KSS 1590	Foundations of Fitness	3
PHLT 1568	Healthy Lifestyles	3
KSS 2605	Sports First Aid and Injury Prevention	3
KSS 4875	Exercise Counseling and Behavioral Strategies	4
Choose any two KSS activity classes. These classes include but are not limited to:		
KSS 1509	Meditation	1
KSS 1552	Yoga	1
KSS 1557	Weight Training	1
KSS 1565	Self Defense	1
KSS 1550	Pilates	1
KSS 1508	Group Cycling	1
Choose one of the following:		
PHLT 3791	Community Health	3
FNUT 5862 & 5862L	Food and Culture and Food and Cultures Laboratory	3
KSS 3725	Mindfulness	2

AHLT 5840	Comparative Health Systems	3
<b>Total Semester Hours - 21-22</b>		

## Department of Military Science

**(330) 941-3205**

Army ROTC has served the University and the nation since 1949 by preparing students for service as professional officers in the United States Army. The military science program at YSU offers a four-year course of study that adds practical management training and leadership experience to students' chosen degrees.

ROTC expands a student's education by providing leadership and management experience. This training helps students develop self-discipline, physical stamina, and poise—qualities basic to success in any worthwhile career. Students genuinely interested in military service can earn commission as second lieutenants in the U.S. Army (which includes the Active Army, Army National Guard, and Army Reserve) while earning their college degrees. Through ROTC, the Army gains Officers with diverse educational backgrounds and contemporary ideas. At the same time, ROTC graduates have the chance to use their training in positions of leadership, and they enable the Army to relate to the thoughts and feelings of our ever-changing society.

At present, over 70 percent of all second lieutenants for the U.S. Army come from ROTC programs nationwide. Students who have career goals outside the Army that require leadership or managerial skills, with interests in national defense structure, and who wish to explore the benefits of the Army are encouraged to enroll in the introductory lower-division military science courses. These courses can be applied as elective credit toward graduation. **Participation in these classes is voluntary and carries no military obligation.**

Army ROTC is one of the programs at YSU that provides leadership training. In Army ROTC, students quickly gain the confidence and self-discipline necessary to succeed in college. As they progress, students acquire skills and experience in taking charge of activities, setting goals, managing people and resources, and making decisions in demanding circumstances. When they complete the Army ROTC program and graduate from YSU, students will have gained both leadership and academic credentials necessary to take on responsibility as Army Officers and/or step into corporate America. A minor in Military Science is available in consultation with the academic major advisor and the Military Science Department.

## S.H. Opportunities for Veterans/Junior ROTC Graduates

Because military experience may serve as total credit for the ROTC Basic Course, most veterans and students with three years of Junior ROTC (high school) are eligible for the ROTC Advanced Course without further instruction.

## Army ROTC/Army Reserve/Army National Guard

Students can further broaden their college experience and earn extra income by combining ROTC with service in the Army Reserve or Army National Guard through the two-year Simultaneous Membership Program (SMP). If students qualify, and SMP vacancies are available, they may join the Army Reserve or Army National Guard unit as Officer trainees and simultaneously enroll in the Army ROTC Advanced Course. In addition to an annual subsistence allowance received for Advanced ROTC, SMP participants are paid for their Reserve or Guard drills and summer training sessions. Contact the Military Science Department for details.

## Scholarship Programs

ROTC scholarships are offered on a case-by-case basis, according to individual merit. Call YSU's Military Science Department at (330) 941-3205 for details.

## Leadership Laboratory

The leadership laboratory is a practical exercise period for both Basic and Advanced courses. It provides hands-on experience in practical military skills and the development of essential characteristics of leadership through progressive evaluation and counseling:

COURSE	TITLE	S.H.
MSCI 1530L	Basic Course Leadership Laboratories	0
MSCI 2630L	Basic Course Leadership Laboratories	0
MSCI 3730L	Advanced Course Leadership Laboratories	0
MSCI 4830L	Advanced Course Leadership Laboratories	0

## Extra-Curricular Activities

Cadets have numerous opportunities to participate in optional ROTC activities outside the classroom. Cadets provide color guards for YSU campus and local community events. At home football games, YSU Cadets raise the national colors and mark every Penguin touchdown by firing the cannon and doing push-ups for the fans. They may participate in overnight field training exercises at Camp Ravenna Joint Military Training Center, testing their land navigation and tactical leadership skills. Cadets receive realistic Army training, including rifle marksmanship, helicopter rides, paintball, rappelling, obstacle courses, and combat water survival. They may attend formal military banquets each semester, as well.

Cadets may compete to represent the ROTC program at prestigious events throughout the year. In the fall, they may be selected to be part of the Bold Warrior Challenge team, and represent YSU in a competition at Fort Knox, KY, against teams from other universities nationwide. Cadets must demonstrate military proficiency and physical fitness above their peers, as they are tested in a variety of tasks including rifle marksmanship, land navigation, constructing and utilizing a rope bridge over water, using a Zodiac raft, passing a physical fitness test, and completing a road march. Cadets may have the opportunity to earn the German Armed Forces Badge for Military Proficiency by completing a fitness test, pistol qualification, demonstrating proficiency in first aid, and completing a road march. Cadets who qualify may also participate in the annual Army Ten Miler in Washington, DC, or honor fallen soldiers and their families at the Mountain Man Memorial March in Gatlinburg, TN.

For more information, visit the [Department of Military Science](#).

## Majors

- Military Science Four Year Program (p. 443)
- Military Science Two Year Program (p. 443)

## Minors

- Minor in Military Science (p. 444)

### MSCI 1510 Introduction to ROTC 1 s.h.

Team and individual study and activities in basic drill, physical fitness, rappelling, leadership recreation course, first aid, making presentations, and basic marksmanship. Fundamental concepts of leadership in a profession in both classroom and outside laboratory environments. One hour lecture and Leadership Laboratory MSCI 1530L per week.

### MSCI 1520 Introduction to Leadership 1 s.h.

Learn/apply principles of effective leading. Reinforce self confidence through participation in physically and mentally challenging exercises. Develop communication skills to improve individual performance and group interaction. Relate organizational ethical values to the effectiveness of a leader. One hour lecture and Leadership Laboratory MSCI 1530L per week.

### MSCI 1530L Basic Course Leadership Laboratories 0 s.h.

Practical exercises with different roles for students at different levels in the program. Build self confidence, and team-building leadership skills that can be applied throughout life. Open only to (and required of) students in the respective MSCI courses. For MSCI 1510 and MSCI 1520 it is MSCI 1530L.

### MSCI 2610 Self Team Development 2 s.h.

Apply ethics-based leadership skills that develop individual abilities and contribute to the building of effective teams. Develop skills in oral presentations, writing concisely, planning of events, coordination of group efforts, advanced first aid, land navigation, and basic military tactics. Fundamentals of ROTC's Leadership Development Program. Two hours lecture and leadership lab MSCI 2630L per week.

### MSCI 2620 Individual/Team Military Tactics 2 s.h.

Introduction to individual and team aspects of military tactics in small unit operations. Includes use of radio communications, safety assessments, movement techniques, planning for team safety/security and methods of pre-execution checks. Practical exercises with upper-division ROTC students. Techniques for training others. Two hours lecture and leadership lab MSCI 2630L per week.

### MSCI 2630L Basic Course Leadership Laboratories 0 s.h.

Practical exercises with different roles for students at different levels in the program. Build self confidence, and team-building leadership skills that can be applied throughout life. Open only to (and required of) students in the respective MSCI courses. For MSCI 2610 and MSCI 2620 it is MSCI 2630L.

### MSCI 2640 Basic ROTC Summer Camp Challenge 3 s.h.

A five-week summer camp conducted at an army post. The student receives pay. Travel, lodging, and most meal costs are defrayed by the Army. The environment is rigorous, and similar to Army Basic Training. No military obligation is incurred.

### MSCI 2650 American Military Operations 2 s.h.

American Military Operations teaches the development and implementation of United States Army doctrine, philosophy, strategy, tactics, logistics, leadership, and battle and campaign analysis in an historical context.

### MSCI 3710 Leading Small Organizations 1 3 s.h.

Practical opportunities to lead small groups and lead again in situations of increasing complexity. Uses small unit tactics and opportunities to plan and conduct training for lower-division students both to develop such skills and as vehicles for practicing leading. Three hours lecture and leadership lab MSCI 3730L per week.

**Prereq.:** Permission of department chairperson.

### MSCI 3720 Leading Small Organizations 2 3 s.h.

Continues methodology of MSCI 3710. Analyze tasks; prepare written/oral guidance for team to accomplish tasks. Delegate tasks and supervise. Plan for the unexpected in organizations under stress. Apply lessons from leadership studies. Examine importance of ethical decision making in setting a positive climate that enhances team performance. Three hours lecture and leadership lab MSCI 3730L per week.

**Prereq.:** Permission of department chairperson.

### MSCI 3730L Advanced Course Leadership Laboratories 0 s.h.

Practical exercises with different roles for students at different levels in the program. Involves leadership responsibilities for the planning, coordination, execution, and evaluation of training and activities. Open only to students in the respective MSCI courses. For MSCI 3710 and MSCI 3720 it is MSCI 3730L.

### MSCI 3740 ROTC Advanced Camp 4 s.h.

A five-week camp conducted at an Army post. Student receives pay. Travel, lodging and meal costs are defrayed by the Army. The Advanced Camp environment is structured and demanding, stressing leadership at small unit levels under varying conditions. Individual leadership and basic skills performance are evaluated.

### MSCI 3750 Individual Study 1-3 s.h.

The individual study of a particular military problem or review of the literature relating to a specific military problem. May be repeated with a different problem for a maximum of 3 s.h.

**Prereq.:** Six s.h. of Military Science and consent of the instructor.

**MSCI 4810 Leadership Challenges and Goal-Setting 3 s.h.**  
 Plan, conduct and evaluate activities of the ROTC cadet organization. Articulate goals, put plans into action. Assess organizational cohesion and develop strategies to improve it. Develop confidence in skills to lead people and manage resources. Learn/apply various Army policies and programs. Two hours lecture and leadership lab MSCI 4830L per week.  
**Prereq.:** Permission of department chairperson.

**MSCI 4820 Transition to Lieutenant 3 s.h.**  
 Continues the methodology from MSCI 4810. Identify and resolve ethical dilemmas. Refine counseling and motivation techniques. Examine aspects of tradition and law as related to leading as an officer in the Army. Prepare for a future as a successful Army lieutenant. Two hours lecture and leadership lab MSCI 4830L per week.  
**Prereq.:** Permission of department chairperson.

**MSCI 4830L Advanced Course Leadership Laboratories 0 s.h.**  
 Practical exercises with different roles for students at different levels in the program. Involves leadership responsibilities for the planning, coordination, execution, and evaluation of training and activities. Open only to students in the respective MSCI courses. For MSCI 4810 and MSCI 4820 it is MSCI 4830L.

## Military Science Four-Year Program

The four-year Army ROTC program is divided into two parts:

- the Basic Course
- the Advanced Course

The Basic Course is usually taken during the freshman and sophomore years:

COURSE	TITLE	S.H.
<b>Basic Course</b>		
Freshman and Sophomore Years		
MSCI 1510	Introduction to ROTC	1
MSCI 1520	Introduction to Leadership	1
MSCI 2610	Self Team Development	2
MSCI 2620	Individual/Team Military Tactics	2
No military commitment is incurred during this time. After completing the Basic Course, students who have demonstrated officer potential and meet physical and scholastic standards are eligible to enroll in the Advanced Course.		
<b>Advance Course</b>		
Junior and Senior Years		
MSCI 3710	Leading Small Organizations 1	3
MSCI 3720	Leading Small Organizations 2	3
MSCI 4810	Leadership Challenges and Goal-Setting	3
MSCI 4820	Transition to Lieutenant	3
<b>ROTC Leader Development and Assessment Course (LDAC)</b>		
Summer between MS III and MS IV (junior and senior years)		
MSCI 3740	ROTC Advanced Camp	4
<b>Total Semester Hours</b>		<b>22</b>

MSCI 3740 ROTC Advanced Camp is conducted at Fort Knox, Kentucky, the summer between the Cadet's junior and senior year. Students put into practice the leadership and tactical skills they have acquired in the classroom with other Cadets from across the country.

All students in the Advanced Course receive uniforms and a monthly stipend.

Before entering the Advanced Course, an individual signs a contract that certifies an understanding of the service obligation. This obligation may be fulfilled in a variety of ways depending on the individual's personal preference and the needs of the Army at the time of commissioning.

Scholarship graduates incur an eight-year obligation and are required to serve one of the following obligations:

- four years on active duty and four years in an Army Reserve
- six years in National Guard unit then two years in the Individual Ready Reserve (IRR)
- three years on active duty and five years in the IRR
- four years on active duty and four years in the IRR
- eight years in Army Reserve or National Guard unit

Nonscholarship graduates are required to serve one of the following obligations:

- two years on active duty and six years in the IRR
- three years on active duty and five years in the IRR
- four years on active duty and four years in the IRR
- six years in an Army Reserve or National Guard unit and two years in the IRR
- eight years in the IRR

All commissionees incur a service obligation of eight years with service being either full-time active duty or part-time in the Army Reserves or Army National Guard. The mix of active and reserve duty is determined by the needs of the Army, the Cadet's performance, and the type of contract the Cadet signed (scholarship or nonscholarship, guaranteed Reserve Forces Duty or participation in the Simultaneous Membership Program of the Army Reserve/National Guard).

COURSE	TITLE	S.H.
MSCI 1510	Introduction to ROTC	1
MSCI 1520	Introduction to Leadership	1
MSCI 2610	Self Team Development	2
MSCI 2620	Individual/Team Military Tactics	2
MSCI 3710	Leading Small Organizations 1	3
MSCI 3720	Leading Small Organizations 2	3
MSCI 4810	Leadership Challenges and Goal-Setting	3
MSCI 4820	Transition to Lieutenant	3
<b>Total Semester Hours</b>		<b>18</b>

## Military Science Two-Year Program

The two-year program permits students who attended a junior college, transfer students, those who did not take Military Science Basic Courses during their first two years of school, and students entering a two-year post graduate course of study to enter the ROTC Advance Course. Students can take advantage of this opportunity by successfully completing a paid four-week ROTC Basic Camp. (MSCI 2640 Basic ROTC Summer Camp Challenge), usually after their sophomore year, and enrolling in the ROTC Advanced Course, normally in their junior year. Except for this camp, the requirements for and obligations incurred in the two- and four-year programs are the same.

All students in the Advanced Course receive uniforms, paid attendance at the Leader Development and Assessment Course (LDAC), and a monthly stipend each school year.

Before entering the Advanced Course, an individual signs a contract that certifies an understanding of the service obligation. This obligation may be fulfilled in a variety of ways depending on the individual's personal preference and the needs of the Army at the time of commissioning.

All commissionees incur a service obligation of eight years with service being either full time active duty or part time in the Army Reserves or the Army National Guard. The mix of active and reserve duty is determined by the needs of the Army, the cadet's performance, and the type of contract the cadet signed (scholarship or nonscholarship, guaranteed Reserve Forces Duty or

participation in the Simultaneous Membership Program of the Army Reserve/ National Guard).

COURSE	TITLE	S.H.
MSCI 1510	Introduction to ROTC	1
MSCI 1520	Introduction to Leadership	1
MSCI 2610	Self Team Development	2
MSCI 2620	Individual/Team Military Tactics	2
MSCI 3710	Leading Small Organizations 1	3
MSCI 3720	Leading Small Organizations 2	3
MSCI 4810	Leadership Challenges and Goal-Setting	3
MSCI 4820	Transition to Lieutenant	3
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Military Science

COURSE	TITLE	S.H.
MSCI 1510	Introduction to ROTC	1
MSCI 1530L	Basic Course Leadership Laboratories	0
MSCI 1520	Introduction to Leadership	1
MSCI 1530L	Basic Course Leadership Laboratories	0
MSCI 2610	Self Team Development	2
MSCI 2630L	Basic Course Leadership Laboratories	0
MSCI 2620	Individual/Team Military Tactics	2
MSCI 2630L	Basic Course Leadership Laboratories	0
MSCI 3710	Leading Small Organizations 1	3
MSCI 3730L	Advanced Course Leadership Laboratories	0
MSCI 3720	Leading Small Organizations 2	3
MSCI 3730L	Advanced Course Leadership Laboratories	0
MSCI 4810	Leadership Challenges and Goal-Setting	3
MSCI 4830L	Advanced Course Leadership Laboratories	0
MSCI 4820	Transition to Lieutenant	3
MSCI 4830L	Advanced Course Leadership Laboratories	0
MSCI 3740	ROTC Advanced Camp	4
<b>Total Semester Hours</b>		<b>22</b>

## Department of Nursing

(330) 941-3293

The Department of Nursing offers a Bachelor of Science in Nursing (BSN) degree and a School Nurse Licensure Certificate Program. Graduate programs leading to a Master of Science in Nursing (MSN) degree are also available. Refer to the *Graduate Catalog* for details.

### Bachelor of Science in Nursing Program

Two programs are offered: an entry-level (pre-licensure) and an Online RN-BSN Completion program.

The entry-level program is a four-year program for new or transfer students entering YSU without a previous degree or diploma in nursing. The program prepares students for the registered nurse role. Graduates are eligible to sit for the NCLEX-RN examination for licensure as a Registered Nurse.

The Online RN-BSN Completion program is offered for students who are currently licensed as registered nurses and are returning to YSU to complete requirements for a baccalaureate degree. After completing prerequisites, the Online RN-BSN Completion program takes four semesters or more on a part-time basis, depending on the student's academic background. More details are available under the Online RN-BSN Completion program tab.

### Accreditation

The BSN program is fully approved by the:

Ohio Board of Nursing  
17 S. High Street, Suite 400  
Columbus, Ohio 43125  
phone: (614) 466-3947

The BSN program is fully accredited by the:

Accreditation Commission for Education in Nursing  
3343 Peachtree Road NE, Suite 500  
Atlanta, GA 30326  
phone: (404) 975-5000

### Admission Requirements for the Entry-level Bachelor of Science in Nursing Program

Admission into the entry-level BSN degree program is restricted. Entry-level students complete admission requirements as pre-nursing majors before formal admission to the BSN program. Admission to the University provides these students with the opportunity to complete a core of pre-nursing courses after which they may apply and compete for a position in the Nursing Program. Admission for the entry-level BSN program is held only once a year for Fall registration. Students who are scheduled to complete all admission requirements by the end of spring semester are eligible to apply for fall semester admission.

### Guaranteed Admission Eligibility

First-time freshman students who score a Composite ACT of 24 or an equivalent combined SAT score of 1650 and have a cumulative GPA of 3.4 or above, are guaranteed a position in the entry level BSN program. To maintain this guaranteed position in the entry-level BSN program, these students must maintain a pre-nursing GPA of 3.2 with at least a "C" in all required pre-nursing courses (with no course repetitions). In addition to these grade requirements, all other admission requirements must be met. Students who do not meet the criteria for maintaining their guaranteed position, but meet the general requirements for admission into the entry-level BSN program, will be considered for Fall admission with all other nursing applicants.

### Late Admission Eligibility

Students who are scheduled to complete all admission requirements by the end of summer semester are eligible to apply for late admission. *Late admission* applicants will be considered if, and only if, there are slots available after all earlier submitted applicants have been considered.

### Transfer Students

Applicants considered for advanced standing include transfer students who were in good standing at the previously attended nursing program and Licensed Practical Nurses (LPNs). LPN applicants must have graduated from an accredited Practical Nurse program and hold a current Practical Nurse license. A total of 11 semester hours of course credit will be given after successful completion of a clinical competency exam. Admission for advanced standing applicants is on a space available basis. Advanced standing applicants must meet all entry-level BSN Admission Requirements. Military credit will be given for electives.

### Applicants for the Entry-level BSN program must meet the following minimum requirements

1. General University pre-college requirements for the Bachelor of Science degree.
2. Completion of required pre-nursing courses with a grade of "C" or better and a cumulative GPA in these courses of 3.0.
3. A cumulative GPA of 2.5 in all college course work.
4. Evidence of current CPR for Health Care Provider Certification.

5. Completed physical examination and immunization requirements.
6. Annual fingerprinting and drug screen through corporate screening for BCI and FBI criminal records check.
7. Photocopy of valid YSU ID.

**Required Pre-Nursing courses for entry-level BSN students include**

COURSE	TITLE	S.H.
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy 1 Laboratory for Health Professions	4
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	3
CHEM 1506 & 1506L	Allied Health Chemistry 2 and Allied Health Chemistry 2 Laboratory	3
PSYC 1560	General Psychology	3
PSYC 3758	Lifespan Development	3
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
SOC 1500	Introduction to Sociology	3
STAT 2625	Stat Lit and Crit Reasoning	4
<b>Total Semester Hours</b>		<b>33</b>

Admission to the University, meeting minimal program admission requirements, and completion of pre-nursing courses does not guarantee admission into the nursing program. Pre-nursing students are encouraged to seek advisement on a regular basis from the pre-nursing advisor in the Dr. Dominic A. and Helen M. Bitonte College of Health and Human Services Dean's office.

**Enrollment in the RN-BSN Online Completion Program**

Students who are currently registered nurses and seeking a BSN degree are admitted on an individual basis. RN-BSN admission is held any semester depending on the student's transferable prerequisites.

See admission requirements at <https://cms.ysu.edu/administrative-offices/distance-education/rn-bsn-admissions-information>

Registered nurses in the Online RN-BSN Completion program must meet all of the above requirements in addition to being a registered nurse with a current license to practice in Ohio or in the RN's home state.

**Course Enrollment/Scheduling**

All nursing courses except NURS 2610 Contemporary Nursing are available only to students formally admitted into the entry-level BSN program. Courses identified in the *Schedule of Classes* for RNs only are limited to registered nurses enrolled in the Online RN-BSN Completion program.

Many nursing courses include an off-campus clinical component. These courses are designated on the curriculum list with semester hours in parentheses. Example: NURS 3743 Professional Nursing 3 5(3+2). This course has three semester hours of lecture and two semester hours of clinical. Generally, one semester hour of credit is earned for each three clock hours of on-campus laboratory skills instruction and for each three off-campus clock hours of clinical instruction. The exceptions are NURS 3741 Professional Nursing 2 clinical, where it is 2.7 clock hours per semester hour and NURS 4853 Nursing Transitions clinical, where it is four clock hours per semester hour. Personal responsibility for transportation is required for travel to off-campus clinical sites.

Malpractice insurance is required for all clinical nursing experiences and is provided by the University when the student registers for the specified courses. Some risk is inherent to nursing students during their clinical education, but precautions are taken to minimize this risk.

**Academic Requirements for the entry-level Bachelor of Science in Nursing Degree**

For new students, the entry-level BSN program consists of 124 total semester hours; 71 semester hours are nursing courses and include 90 on-campus lab hours and 960 clinical contact hours.

Students are responsible for adhering to the prescribed BSN curriculum sequence including, but not limited to, course prerequisites and mandated sequencing of nursing courses. It is also the students' responsibility to see that all graduation requirements for the BSN degree are satisfied. It is recommended that students frequently seek guidance from their nursing advisor. A copy of the BSN curriculum is available from the Department of Nursing. This program can be completed in eight semesters if students adhere to a curriculum schedule of 14-17 credit hours per semester.

After admission to the program, a grade of "C" or better is mandatory for all nursing courses, required non-nursing support courses, required elective, and general education hours. Only one nursing or one non-nursing support course (BIOL 1560 Microbiology for the Health Professions and BIOL 1560L Microbiology Laboratory for Health Professions or FNUT 1551 Normal Nutrition) may be repeated. A repeated course must be successfully completed with a grade of "A," "B," or "C" and all incomplete grades must be removed before progressing in the nursing curriculum. A grade of less than "C" in a second nursing or required non-nursing support course will result in permanent removal from the nursing program.

A Bachelor of Science in Nursing degree will be granted to the student who has completed the required baccalaureate nursing curriculum with a minimum grade point average of 2.00.

The Department of Nursing reserves the right to remove a student from the program when that student's performance in any nursing course is deemed to be unsafe as characterized by dangerous, inappropriate, irresponsible or unethical behavior. The department reserves the right to dismiss a student who, for legal, ethical, academic, emotional, or physical reasons, cannot be advised to continue in the program.

Current immunizations, CPR for Health Care Professionals certification, annual drug screen and fingerprinting, BCI and FBI criminal background checks are required of all nursing students. If the criminal record check reveals an egregious felony, the Ohio Board of Nursing will not consider the applicant for licensure. Please refer to the Ohio Board of Nursing (<http://www.nursing.ohio.gov>) website for additional information. Some lesser offenses may impede student placement at a clinical site, which will affect the student's ability to progress in the program. Random drug testing may occur periodically. Students must adhere to a dress code which includes the wearing of specific nurse's uniform for nursing clinical courses. All policies/requirements stated in this *Undergraduate Catalog* and the *BSN Undergraduate Handbook* must be adhered to by students throughout the program.

For more information, visit the **Department of Nursing**.

**Chair**

**Nancy Wagner, D.N.P., Professor, Chair**

**Professor**

**Kimberly A. Ballone, D.N.P., Professor**

**Patricia L. Hoyson, Ph.D., Professor**

**Susan A. Lisko, D.N.P., Associate Professor**

**Valerie Marie O'Dell, D.N.P., Associate Professor**

**Nicole Olshanski, D.N.P., Assistant Professor**

**Molly Roche, M.S.N., Clinical Assistant Professor**

**Pamela A. Schuster**, Ph.D., Professor

**Cynthia M. Shields**, D.N.P., Clinical Associate Professor

**Mary P. Shortreed**, D.N.P., Assistant Professor

**Amy Weaver**, Ph.D., Associate Professor

#### Instructor

**Sheila M. Blank**, M.S.N., Clinical Instructor

**Laura Calcagni**, M.S.N., Clinical Instructor

**Cynthia Daniels**, M.S.N., Clinical Instructor

**Lori Ann Fusco**, M.S.N., Clinical Instructor

**Nora Lipscomb**, M.S.N., Instructor

**Paula McClusky**, M.S.N., Instructor

**Teresa Peck**, M.S.N., Instructor

**Wendy Thomas**, M.S.N., Instructor

## Majors

- BSN for Entry-Level Students (Non-RN) (p. 447)
- BSN for RN Students (RN-BSN Completion) (p. 448)

## Licensure

- School Nurse Licensure Program (p. 449)

### **NURS 2610 Contemporary Nursing 3 s.h.**

Concepts related to professional nursing practice including nursing as a developing profession; educational perspectives and patterns; legal and ethical accountability; economic and political aspects; health care delivery systems; and nursing management and leadership roles. Open to nursing and non-nursing majors.

### **NURS 2643 Health Assessment 4 s.h.**

Development of communication and assessment skills for obtaining health data from various age groups, as well as reporting and recording findings. Three hours lecture, three hours clinical experience in a variety of settings per week.

### **NURS 2643L Health Assessment Laboratory 0 s.h.**

Health Assessment Laboratory.

### **NURS 2645 Professional Nursing 1 8 s.h.**

Applications of the nursing process for the care of clients with emphasis on health assessment, health promotion, and psychosocial and psychomotor skills. Three hours lecture, 15 hours clinical experience in a variety of settings per week.

**Prereq.:** NURS 2643, NURS 2610, NURS 2646 and BIOL 1560, BIOL 1560L.

### **NURS 2645L Professional Nursing 1 Laboratory 0 s.h.**

Professional Nursing 1 Laboratory.

### **NURS 2646 Pathophysiology 4 s.h.**

Concepts related to pathophysiologic mechanisms of illness. Emphasis on application to nursing using the nursing process.

**Prereq.:** BIOL 1552, BIOL 1552L and CHEM 1506, CHEM 1506L.

### **NURS 2650 Pharmacology 3 s.h.**

Concepts of pharmacology applies to major drug classes. Emphasis on application of nursing process to drug therapy across the lifespan.

**Prereq.:** NURS 2646.

### **NURS 3710 Nursing in the Community 5 s.h.**

Nursing in the community including families in health and illness needs.

**Prereq.:** NURS 2645, BSN Entry-level Program.

### **NURS 3710L Nursing in the Community Laboratory 0 s.h.**

Nursing in the Community Laboratory.

### **NURS 3720 Professional Nursing 3 s.h.**

Concepts related to professional nursing practice for graduates of ADN and diploma programs.

**Prereq.:** Valid RN Licensure.

### **NURS 3725 Nursing Informatics 2 s.h.**

This course explores nursing and health care informatics and its application to nursing practice and nursing education. Includes technological strategies to access, evaluate and document information and apply skills to patient care in the nursing profession. Development of computer skills to be successful in the online teaching format are included.

**Prereq.:** admission to online RN-BSN completion program.

### **NURS 3730 Culture in Nursing 3 s.h.**

Culture in Nursing: Students will develop cultural awareness, assessment, communication and intervention techniques for various Cultures. The application of Culture to the practice of Nursing will be emphasized. Three class hours and no clinical hours/week.

**Prereq.:** Valid RN Licensure.

### **NURS 3731 Child Bearing, Family, and Women's Health Nursing 5 s.h.**

Family-centered .

Family-centered **Prereq.:** NURS 3741, BSN Entry-level.

### **NURS 3731L Child Bearing, Family, and Women's Health Nursing Laboratory 0 s.h.**

Child Bearing, Family, and Women's Health Nursing Laboratory.

### **NURS 3735 Health Promotion Across the Lifespan 3 s.h.**

This course provides the student with a theoretical foundation for wellness, health promotion and disease prevention across the lifespan. The role of the nurse as a health educator and patient advocate for health care and maintenance of health for patients of various ages, their families and groups will be explored. Students will develop a plan of care to ensure healthy lifestyles and promotion of wellness. Three class hours and no clinical hours/week.

**Prereq.:** Valid RN Licensure.

### **NURS 3741 Professional Nursing 2 6 s.h.**

Principles and practices of health promotion and rehabilitation of clients with acute and chronic health needs. Three hours lecture, nine hours clinical experience in a variety of settings per week.

**Prereq.:** NURS 2645, BSN Generic Program.

### **NURS 3741L Professional Nursing 2 Laboratory 0 s.h.**

Professional Nursing 2 Laboratory.

### **NURS 3743 Professional Nursing 3 5 s.h.**

Advanced principles and practices of health promotion and rehabilitation of patients with acute and chronic health needs. Three hours lecture, six hours clinical experience in a variety of settings per week.

**Prereq.:** NURS 3741, BSN Generic Program.

### **NURS 3743L Professional Nursing 3 Laboratory 0 s.h.**

Professional Nursing 3 Laboratory.

### **NURS 3746 Geriatric Health 2 s.h.**

An examination of the aging person's physical changes with implications for determining healthcare needs and for interpreting the impact of these upon the elder's life and current health practices.

**Prereq.:** Junior status.

### **NURS 3747 Individual Studies 1-3 s.h.**

The study of special problems or a review of the literature relating to specific problems or issues. May be repeated for a maximum of 6 s.h. with different problems.

**Prereq.:** Admission to program or permission of department chairperson.

### **NURS 3749 Nursing Research 3 s.h.**

Process of research using reasoning and scientific rigor in critical analysis of nursing research.

**Prereq.:** STAT 2625, BSN Generic Program.

**NURS 3750 Evidence Based Practice 3 s.h.**

Process of evidence based practice using research, reasoning and scientific rigor in critical analysis of nursing research. Prereq: STAT 2625, RN-BSN Online Program.

**NURS 4804 Health Assessment for RNs 3 s.h.**

Increase clinical knowledge and skills in health assessment of clients of various age groups, and the reporting and recording of findings.

**Prereq.:** admission to online RN-BSN completion program.

**NURS 4832 Nursing Care of Children and Families 5 s.h.**

Family-centered nursing concentrating on health promotion/illness and prevention and acute/chronic health care needs of the developing child and family. Three hours lecture and six hours clinical experience in a variety of settings per week.

**Prereq.:** NURS 3743, BSN Generic Program.

**NURS 4832L Nursing Care of Children and Families Laboratory 0 s.h.**

Nursing Care of Children and Families Laboratory.

**NURS 4840 Complex Care 5 s.h.**

High acuity, restorative, and health promoting care of clients with complex health problems. Three hours lecture, six hours clinical experience in a variety of settings per week.

**Prereq.:** NURS 3743, BSN Generic Program.

**NURS 4840L Complex Care Laboratory 0 s.h.**

Complex Care Laboratory.

**NURS 4842 Mental Health Nursing 5 s.h.**

Mental health theories and strategies as the foundation in the management of individuals, families, and groups experiencing acute and chronic mental illness. Emphasis on the promotion of optimal level functioning and mental wellness. Three hours lecture, six hours clinical experience in a variety of settings per week.

**Prereq.:** NURS 3743, BSN Generic Program.

**NURS 4842L Mental Health Nursing Laboratory 0 s.h.**

Mental Health Nursing Laboratory.

**NURS 4844 Community Health Nursing 3 s.h.**

Synthesis of nursing and public health sciences with emphasis on promotion and maintenance of healthy communities through the assessment and analysis of at-risk population groups. Includes nursing role in health care policy.

**Prereq.:** NURS 3743, BSN Generic Program.

**NURS 4846 Community Health Nursing for RNs 4 s.h.**

A synthesis of nursing and public health sciences emphasizing health of communities through assessment analysis of at-risk population groups. Includes nursing role in healthcare policy. Three hours of lecture and three hours clinical experience in a variety of settings per week.

**Prereq.:** admission to online RN-BSN completion program.

**NURS 4846L Community Health Nursing for RNs Laboratory 0 s.h.**

Community Health Nursing for RNs Laboratory.

**NURS 4852 Senior Capstone Seminar 1 s.h.**

Provides students with opportunities to integrate and synthesize nursing knowledge through research, writing, and presentations on current topics and issues.

**Prereq.:** Last semester in program, BSN Generic Program.

**Gen Ed:** Capstone.

**NURS 4853 Nursing Transitions 4 s.h.**

Analysis, synthesis, and evaluation of care delivered by the healthcare team with emphasis on development of leadership and research roles. Two hours lecture and eight hours clinical experience in a variety of settings per week.

**Prereq.:** NURS 4840 or concurrent, BSN Generic Program.

**NURS 4853L Nursing Transitions Laboratory 0 s.h.**

Nursing Transitions Laboratory.

**NURS 4854 Nursing Leadership 4 s.h.**

Analysis, synthesis, and evaluation of care delivered by the healthcare team with emphasis on development of leadership and research roles for the registered nurse. Three hours lecture per week and 4 hours of clinical hours experience per week, totaling 60 hours. admission to online RN-BSN completion program.

**NURS 4854L Nursing Leadership Laboratory 0 s.h.**

Nursing Leadership Laboratory.

**NURS 4855 Comprehensive Nursing Summary 2 s.h.**

Identifies individual strengths and weaknesses with emphasis on improving students' understanding and demonstration of essential nursing knowledge. Must be taken concurrently with NURS 4853 and NURS 4852.

**Prereq.:** Senior standing in nursing.

## Learning Outcomes

### BACCALAUREATE NURSING STUDENT LEARNING OUTCOMES

The integration of nursing theory, clinical practice, and critical thinking serves as the foundation for the program and upon completion of the program, the graduate is able to:

- Use the American Nurses Association Standards of Care when providing care for individuals, families, groups, and communities across the life span.
- Use critical thinking in decision-making and problem-solving while adhering to the Professional Code of Ethics for Nurses.
- Use effective and appropriate interpersonal communications and information technology.
- Apply theories and research findings from nursing and other disciplines to provide evidence-based, clinically, competent care.
- Provide culturally sensitive care and health education to individuals, families, groups, and communities.
- Demonstrate leadership and apply management skills that promote accountability, legal and ethical conduct, and maintenance of standards of care.
- Collaborate with the interdisciplinary healthcare team in planning, coordinating, and evaluating outcomes for quality cost-effective care and continuous improvement of the healthcare system.
- Manage human and material resources to provide access to healthcare for individuals, families, groups, and communities.
- Advocate for public policy to provide and protect the health of the public.
- Demonstrate commitment to life-long learning and service to the nursing profession.

## Bachelor of Science in Nursing for Entry-Level Students

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	3
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy 1 Laboratory for Health Professions	4
ENGL 1550	Writing 1	3
PSYC 1560	General Psychology (SS)	3
STAT 2625	Stat Lit and Crit Reasoning	4
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
CHEM 1506 & 1506L	Allied Health Chemistry 2 and Allied Health Chemistry 2 Laboratory	3



BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
ENGL 1551	Writing 2	3
PSYC 3758	Lifespan Development	3
SOC 1500	Introduction to Sociology	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2

**Semester Hours** 18

**Year 2**

**Fall**

BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3
NURS 2610	Contemporary Nursing	3
NURS 2643 & 2643L	Health Assessment and Health Assessment Laboratory	4
NURS 2646	Pathophysiology	4

**Semester Hours** 14

**Spring**

CMST 1545	Communication Foundations	3
FNUT 1551	Normal Nutrition	3
NURS 2645 & 2645L	Professional Nursing 1 and Professional Nursing 1 Laboratory	8
NURS 2650	Pharmacology	3

**Semester Hours** 17

**Year 3**

**Fall**

NURS 3710 & 3710L	Nursing in the Community and Nursing in the Community Laboratory	5
NURS 3741 & 3741L	Professional Nursing 2 and Professional Nursing 2 Laboratory	6
Arts & Humanities GER (AH)		3

**Semester Hours** 14

**Spring**

NURS 3743 & 3743L	Professional Nursing 3 and Professional Nursing 3 Laboratory	5
NURS 3749	Nursing Research	3
NURS 3731 & 3731L	Child Bearing, Family, and Women's Health Nursing and Child Bearing, Family, and Women's Health Nursing Laboratory (spring or fall semester)	5

OR

NURS 4832	Nursing Care of Children and Families	
Arts & Humanities GER (AH)		3

**Semester Hours** 16

**Year 4**

**Fall**

NURS 3731 & 3731L	Child Bearing, Family, and Women's Health Nursing and Child Bearing, Family, and Women's Health Nursing Laboratory	5
NURS 4840 & 4840L	Complex Care and Complex Care Laboratory (spring or fall semester)	5

OR

NURS 4832 & 4832L	Nursing Care of Children and Families and Nursing Care of Children and Families Laboratory	
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NURS 4842 & 4842L	Mental Health Nursing and Mental Health Nursing Laboratory	
NURS 4844	Community Health Nursing	3
Elective		3

**Semester Hours** 16

**Spring**

NURS 4840 & 4840L	Complex Care and Complex Care Laboratory	5
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OR

NURS 4842 & 4842L	Mental Health Nursing and Mental Health Nursing Laboratory (spring or fall semester)	
NURS 4852	Senior Capstone Seminar	1
NURS 4853 & 4853L	Nursing Transitions and Nursing Transitions Laboratory	4
NURS 4855	Comprehensive Nursing Summary	2

**Semester Hours** 12

**Total Semester Hours** 124

**Note:** All Basic Skills & Knowledge Domains requirements are included in the above curriculum.

Once admitted into the program sophomore year, any deviation from the prescribed curriculum must be approved by the Admission, Progression, and Graduation (APG) Committee.

## Bachelor of Science in Nursing for RN Students (100% Online RN-BSN Completion)

COURSE	TITLE	S.H.
<b>I. General Education Requirements/Prerequisites and Required Support Courses</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations (may be taken concurrently with nursing courses)	3
Mathematics Requirement		
STAT 2625	Stat Lit and Crit Reasoning (can be taken concurrently with nursing courses but must be taken prior to NURS 3749)	4
Arts and Humanities		6
Natural Sciences		
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy 1 Laboratory for Health Professions	4
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	3
Social Science		
PSYC 1560	General Psychology	3
SOC 1500	Introduction to Sociology	3
Social and Personal Awareness		
PSYC 3758	Lifespan Development	3
FNUT 1551	Normal Nutrition	3
GER Electives		5

**II. Nursing Credit Escrow Hours awarded after completion of NURS 3720, NURS 3730, and NURS 3735 with a cumulative GPA of 2.00.**

**Equates to the following courses:**

NURS 2645 & 2645L	Professional Nursing 1 and Professional Nursing 1 Laboratory	8
NURS 3731 & 3731L	Child Bearing, Family, and Women's Health Nursing and Child Bearing, Family, and Women's Health Nursing Laboratory	5
NURS 3741 & 3741L	Professional Nursing 2 and Professional Nursing 2 Laboratory	6
NURS 3710 & 3710L	Nursing in the Community and Nursing in the Community Laboratory	5
NURS 3743 & 3743L	Professional Nursing 3 and Professional Nursing 3 Laboratory	5
NURS 4832 & 4832L	Nursing Care of Children and Families and Nursing Care of Children and Families Laboratory	5
NURS 4840 & 4840L	Complex Care and Complex Care Laboratory	5
NURS 4842 & 4842L	Mental Health Nursing and Mental Health Nursing Laboratory	5

**III. Required Nursing Courses. Total 26 hours + escrow hours awarded.**

NURS 3720	Professional Nursing	3
NURS 3725	Nursing Informatics	2
NURS 3730	Culture in Nursing	3
NURS 3735	Health Promotion Across the Lifespan	3
NURS 4804	Health Assessment for RNs	3
NURS 4846 & 4846L	Community Health Nursing for RNs and Community Health Nursing for RNs Laboratory	4
NURS 3749	Nursing Research	3
NURS 4852	Senior Capstone Seminar	1
NURS 4854 & 4854L	Nursing Leadership and Nursing Leadership Laboratory	4
NURS Electives or Individual Studies (only if hours needed)		

**IV. Additional Academic courses to meet the following minimum requirements:**

120 minimum program hours for graduation with at least 48 hours in upper division (3700 and 4800 level) .

A BSN degree will be granted to the student who has completed the required baccalaureate nursing curriculum with a minimum grade point average of 2.00.

**Total Semester Hours** 120

## License in School Nurse Licensure Program

### Program Description

The School Nurse Licensure program is designed to build on an undergraduate education and to prepare registered nurses with a baccalaureate degree for school nurse licensure. Courses are taught by faculty in the Department of Nursing and in the Beeghly College of Education.

### Curriculum

This program requires 15-17 semester credit hours including four courses plus 300 practicum hours (5 s.h. credit) in a school setting under the supervision of a licensed school nurse preceptor and a university faculty member. This practicum may be taken in increments to accommodate the working student. Opportunities for practicum hours to be waived (up to 200 hours) are considered on an individual basis for nurses with school nurse experience. Courses are either online or hybrid, meeting about four (4) times during the

semester. After the completion of the courses, the student will receive a post-baccalaureate certificate.

## Admission Process

Students seeking admission into the school nurse licensure program must have an undergraduate degree (BSN) with coursework in growth and development, psychology, sociology, and community health.

Students must be licensed to practice nursing in Ohio or eligible to be licensed (graduate of an approved school of nursing).

An Ohio Registered Nurse license is required for practicum placement. For more information and specific course descriptions, see the School Nurse Licensure Program Description ([http://catalog.yzu.edu/undergraduate/colleges-programs/college-health-human-services/department-nursing/school-nurse-licensure-program/School\\_Nurse\\_Licensure\\_Program\\_-\\_7\\_-\\_2016.pdf](http://catalog.yzu.edu/undergraduate/colleges-programs/college-health-human-services/department-nursing/school-nurse-licensure-program/School_Nurse_Licensure_Program_-_7_-_2016.pdf)) or contact Dr. Valerie O'Dell at [vmodell@ysu.edu](mailto:vmodell@ysu.edu).

## Department of Social Work

(330) 941-1598

3365 Cushwa Hall

The baccalaureate degree with a major in social work prepares students for entry into beginning, generalist, and entry-level professional social work practice. Social workers are employed in a variety of settings such as public and private welfare agencies, mental health centers, health care settings, educational systems, correctional institutions, and business and industry.

The Bachelor of Social Work program is available on the main (Youngstown) campus. This program is also available in partnership with Lorain County Community College in Elyria, Ohio, and Lakeland County Community College in Kirtland, Ohio. For more specific information pertaining to the BSW program at the partnership sites, visit BSW and MSW Partnership Programs (<http://www.yzu.edu/academics/bitonte-college-health-and-human-services/bsw-msw-partnership-programs>).

The BSW program at all sites is accredited by the Council on Social Work education.

Course work at the host community college and combine credits earned with YSU social work courses taught on the site of the respective community college to fulfill requirements for the BSW degree. All YSU instruction is provided by YSU faculty members. Students have access to Ohio LINK online research services, YSU student support, and additional academic support available through the community college.

## Core Competencies of Social Work Practice

The BSW program at Youngstown State University applies a competency-based curriculum that develops in students core competencies of generalist social work practice as defined by the Council on Social Work Education. Upon graduating from the BSW program students are expected to:

1. Identify as a professional social worker and conduct oneself accordingly.
2. Apply social work ethical principles to guide professional practice.
3. Apply critical thinking to inform and communicate professional judgements.
4. Engage diversity and difference in practice.
5. Advance human rights and social and economic justice.
6. Engage in research-informed practice and practice-informed research.
7. Apply knowledge of human behavior and the social environment.
8. Engage in policy practice to advance social and economic well-being and to deliver effective social work services.

9. Respond to contexts that shape practice.
10. Engage, assess, intervene, and evaluate with individuals, families, groups, organizations, and communities.

## Admission Policy

Neither admission to the University nor enrollment in social work courses as a pre-social work major guarantees full admission to the social work program. Full admission to the program is required to become a social work major and to gain access to upper-division social work classes. Pre-social work majors who are not formally admitted to the social work program will be unable to obtain a permit to register for SCWK 3736 Social Work Methods with Individuals and subsequent social work courses for which SCWK 3736 Social Work Methods with Individuals is a prerequisite.

Qualified students who have been convicted of misdemeanor or felony offenses may be admitted to the program. However, field internship opportunities may be restricted due to agency prohibitions pertaining to the engagement of students in agency work in possession of criminal records. Additionally, students should be aware that state licensure in social work may not be possible for individuals with past convictions. Students with convictions are advised to become informed of requirements pertaining to social work licensure and possible avenues of appeal as they consider their enrollment in the Bachelor of Social Work program and the limitations prior convictions may impose on their ability to practice the profession of social work.

For more information, visit the **Department of Social Work**.

### Chair

**Dennis Morawski**, Ph.D., Associate Professor, Chair

### Professor

**Mari L. Alschuler**, Ph.D., Associate Professor

**Andrea Barrick**, Ph.D., Assistant Professor

**Dana Davis**, Ph.D., Assistant Professor

**Joseph L. Mosca**, Ph.D., Professor

**Thelma Silver**, Ph.D., Professor

**Sherri Harper Woods**, D.M., Assistant Professor

### Instructor

**Meghan Bileci**, M.S.W., Instructor

**Tami W. Holcomb-Hathy**, M.S.S.A., Instructor

**Karla A. Wyant**, M.S., Instructor

## Majors

- Pre-Social Work (p. 455)
- Social Work (p. 452)
- Social Services Technology (p. 451)

## Minors

- Minor in Social Work (p. 455)

### SCWK 1510 Introduction to Social Work 3 s.h.

An overview of the values, systems, policy, theories and concepts central to the profession of social work. This course will also review roles, licensure requirements and history of the social work profession. This is the first course orienting students to the social work profession.

**Prereq.:** SOC 1500.

### SCWK 2600 Health Issues for Social Work Practice 3 s.h.

Explores impact of physical and biological forces on client issues/needs and importance of understanding these factors for professional social work practice. Emphasis given to biological development across the human lifespan, ecological issues, genetic influences, health concerns.

**Prereq.:** ENGL 1550 and SCWK 1510.

### SCWK 2622 Social Work Processes 3 s.h.

Addresses the full range of communication skills in systems of all sizes for professional social work practice. Includes principles of effective communication, functions and purposes of communication, and the roles of social workers. Thirty clock hours of volunteer engagement required. Three hours lecture.

**Prereq.:** SCWK 1510.

### SCWK 2641 American Social Welfare 3 s.h.

Overview of the history and evolution of social welfare programs and services in America. Emphasis on the identification and interrelationships of social values and structures, political factors, and economic conditions on resource allocation, including meeting the needs of special populations.

**Prereq.:** SCWK 1510.

### SCWK 2642 Human Behavior and the Social Environment for Social Workers 1 3 s.h.

A general social systems approach as a conceptual framework to the understanding of culture and society, communities, organizations, groups, families, and individuals as they develop over the lifespan. Application of theory and research to social work.

**Prereq.:** SCWK 1510, PSYC 1560.

### SCWK 2644 Human Behavior and the Social Environment for Social Workers 2 3 s.h.

An ecosystems perspective in understanding families, groups, organizations and communities. Focus on individuals and their transactions with each other and their environment. Application of theory and research to social work.

**Prereq.:** SCWK 2642.

### SCWK 2695 Applied Social Work 6 s.h.

A practicum in human service agencies for the Social Services Technology major. The student must spend 225 hours in an agency for a total of 6 s.h. credit.

**Prereq.:** Completion of all courses for admission to the two-year Social Services Technology Internship.

### SCWK 3726 Child Welfare and Case Planning 3 s.h.

This course provides the knowledge, concepts, and skills needed for beginning level social work practice in public and child welfare settings. Major focus is on protecting at-risk children by strengthening, supporting and empowering families.

**Prereq.:** SCWK 1510.

### SCWK 3727 Child Welfare Permanency Planning 3 s.h.

Provides the knowledge, concepts, and skills needed for beginning level social work practice in public child welfare settings. Major focus is on the developmental needs and permanency planning associated with at-risk children served by the child welfare system.

**Prereq.:** SCWK 1510.

### SCWK 3728 Social Services for Children 3 s.h.

Social welfare agencies and services developed by communities for the care and training of children. Development of a conceptual framework for understanding the issues, problems, and policies in children's services.

**Prereq.:** SCWK 2622.

### SCWK 3730 Social Services and the Aged 3 s.h.

An empirical and analytical base for understanding the policies, problems, and trends in services for the aged.

**Prereq.:** SCWK 2622.

### SCWK 3731 Social Services and the Disabled 3 s.h.

Problems arising from or related to illness and disability; adjustment of disabled persons. General interventive techniques for working with the disabled; recent research and treatment innovations.

**Prereq.:** SCWK 2622.

**SCWK 3736 Social Work Methods with Individuals 3 s.h.**

Overview of generalist practice methods with client systems of varying sizes. In-depth analysis of problem solving strategies and skills in working with individuals. Theory and research relating to practice. Social work purposes, functions, and values are addressed from the systems perspective.

**Prereq.:** Admission to SCWK Program.

**SCWK 3737 Social Work Methods with Groups 3 s.h.**

In-depth analysis of problem-solving strategies and skills in working with small groups. Theory and research relating to practice. Social work purpose, functions, and values are addressed for the systems perspective.

**Prereq.:** SCWK 3736.

**SCWK 3738 Social Work Methods with Families 3 s.h.**

In-depth analysis of problem-solving strategies and skills in working with families. Theory and research relating to practice. Social work purposes, functions, and values are addressed from the systems perspective.

**Prereq.:** SCWK 3736.

**SCWK 3740 Mental Health and Addictions 3 s.h.**

This course focuses on the study of mental health and addictions in the Social Work discipline. The course includes social work theory, practice and service delivery methods, and research. Policy considerations will also be addressed.

**Prereq.:** Junior standing or permission of instructor.

**SCWK 3750 Analysis of Social Work Practice Data 3 s.h.**

Techniques of data description and introduction to analytical methods used to evaluate service delivery at all levels of social work practice.

**Prereq.:** SCWK 2641 and SCWK 2644.

**SCWK 3760 Research Methods for Social Workers 3 s.h.**

Quantitative and Qualitative research methodologies for building knowledge for social work practice. Systematic evaluation of outcomes, theoretical bases, relevant technological advances, and ethical standards.

**Prereq.:** SCWK 3750.

**SCWK 4825 Field Work in Social Services 6 s.h.**

Professionally supervised practice in an approved social agency. The student must complete 225 hours per semester in an agency for each 6 s.h. of credit. Must be taken two consecutive semesters for a total of 12 s.h. CR/NC grade option only.

**Prereq.:** Admission to Social Work Internship.

**SCWK 4826 Integrated Field Work Seminar 3 s.h.**

Integration and evaluation of conceptual, affective, and experiential learning achieved from previous social work courses and field-based assignments.

**Prereq.:** Completion of courses required to enter field work.

**Concurrent:** SCWK 4825 first enrollment.

**SCWK 4827 Integrated Capstone Seminar 3 s.h.**

Provides opportunities to synthesize and integrate all the previous coursework from social work education. Includes both theoretical and experiential assignments to assist students with increased self awareness and to prepare them for the transition from college to entry-level generalist practice.

**Prereq.:** Completion of courses required to enter field work and SCWK 4826.

**Concurrent:** SCWK 4825 second enrollment.

**Gen Ed:** Capstone.

**SCWK 4860 Seminar Special Topics in Social Work 1-3 s.h.**

Study of selected topics in social work theory, methods and research. May be repeated with different topics. 1-3 s.h.

**Prereq.:** Junior standing or permission of instructor.

**SCWK 5820 Social Policy 3 s.h.**

Review of the programs, structure, and functions of social services including historical development and social, political, and economic issues. Application of scientific method to analyze and develop social work policies designed to achieve social work goals and purposes.

**Prereq.:** SCWK 2641, POL 1560.

**SCWK 5822 Social Work Methods with Organizations and Communities 3 s.h.**

In-depth analysis of problem-solving strategies and skills in working with organizations and communities. Theory and research relating to practice. Social work purpose, functions, and values are addressed from the systems perspective.

**Prereq.:** SCWK 3736.

**SCWK 5823 Cultural Diversity in Practice 3 s.h.**

Emphasis on understanding the experiences, beliefs, and inherent problems of racial and ethnic minority groups. Focuses also on populations distinguished by socioeconomic status, gender, age, sexual orientation, religion, and physical or mental disability. Application of theories, differential assessment, and intervention skills necessary for effective social work practice.

**Prereq.:** SCWK 3736 or permission of instructor.

## Associate of Applied Science in Social Services Technology

The Department of Social Work offers a two-year program in social services technology leading to the Associate of Applied Science. The primary purpose of this program is to provide a formal two-year degree for those currently employed social worker aides who wish to increase their professional qualifications, and for those who are entering the field of social work in the less complex positions. Students completing the SST requirements are eligible for licensing as a Social Service Assistant through the State of Ohio Counselor, Social Worker, and Marriage and Family Therapist Board.

## Welcome

A social services technology degree can be a first step in developing a career in the service of others. Many students achieving the SST degree apply their courses associated with the SST degree to the Bachelor of Social Work degree. You are encouraged to consider the Social Services Technology degree to begin a career in human services.

## Contact Information

SST Advisor: Dr. Dennis Morawski: (330) 941-3774 [dpmorawski@ysu.edu](mailto:dpmorawski@ysu.edu)

Social Work Department Office: (330) 941-1598

### ADMISSION REQUIREMENTS:

Only students admitted to Youngstown State University in good standing can be admitted to the Social Services Technology program.

The student must meet the general degree requirements and department course requirements as follows:

COURSE	TITLE	S.H.
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Social Work Support Courses</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
POL 1560	American Government	3
PHIL 1565	Critical Thinking	3
REL 2601	Introduction to World Religions	3
<b>Department Requirements for Social Services Technology</b>		
SCWK 1510	Introduction to Social Work	3
SCWK 2600	Health Issues for Social Work Practice	3
SCWK 2622	Social Work Processes	3
SCWK 2641	American Social Welfare	3

SCWK 2642	Human Behavior and the Social Environment for Social Workers 1	3
SCWK 2644	Human Behavior and the Social Environment for Social Workers 2	3
SCWK 3736	Social Work Methods with Individuals (completion required for entry into SCWK 2695)	3
Select one of the following: (Required for entry into SCWK 2695)		3
SCWK 3726	Child Welfare and Case Planning	
SCWK 3727	Child Welfare Permanency Planning	
SCWK 3730	Social Services and the Aged	
SCWK 3731	Social Services and the Disabled	
SCWK 4860	Seminar Special Topics in Social Work	
SCWK 2695	Applied Social Work	6
Elective		4
<b>Total Semester Hours</b>		<b>60</b>

To be eligible for the Social Service Technology degree students must earn a "C" or better in all support and major courses with an overall GPA of 2.5 or greater.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
ENGL 1550	Writing 1	3
POL 1560	American Government	3
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
PHIL 1565	Critical Thinking	3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
SCWK 1510	Introduction to Social Work	3
SCWK 2600	Health Issues for Social Work Practice	3
SCWK 2642	Human Behavior and the Social Environment for Social Workers 1	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
REL 2601	Introduction to World Religions	3
SCWK 2622	Social Work Processes	3
SCWK 2641	American Social Welfare	3
SCWK 2644	Human Behavior and the Social Environment for Social Workers 2	3
SCWK 3736	Social Work Methods with Individuals	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
SCWK 2695	Applied Social Work	6
Elective		4
Special Topics Course		
Select one of the following:		3
SCWK 3728	Social Services for Children	3
SCWK 3730	Social Services and the Aged	3
SCWK 3731	Social Services and the Disabled	3

SCWK 4860	Seminar Special Topics in Social Work (with prior permission)	3
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>60</b>

## Learning Outcome

- Prepare students for social service assistant roles.
- Provide students with the ability to integrate basic knowledge, values, and skills of the social work profession into basic practice with individuals.
- Develop the rudimentary ability of students to work with a diversity of clients within social services agencies.
- Facilitate the development of core values and ethics essential to competent work with clients.
- Increase students' awareness of issues concerning social and economic justice to include poverty, oppression, racism, and discrimination.

## Bachelor of Social Work in Social Work

Youngstown State University offers an accredited Bachelor of Social Work program. The program includes general education, support, social work lecture courses and a social work field internship to prepare graduates for entry-level professional social work practice. Graduates of the BSW program are eligible for a license to practice social work as a Licensed Social Worker (LSW) in Ohio.

## WELCOME

The social work profession has a long-standing tradition of delivering the energy, intelligence, and heart to make a difference in the lives of people. Through the efforts and energy of social workers, people who might otherwise suffer or go without suffer less and have what they need. Because of the knowledge and skills social workers use to help people, complex human problems are addressed responsibly using the best methods available. And through the expression of humane values held by members of the social work profession, people served are treated with compassion and dignity.

Social workers are committed to helping people adapt with a keen eye on the environment and the opportunities that exist to make this adaptation possible. Social workers work with a broad range of people and the concerns they bring and are interested in the actions that will improve their situations. Social workers are employed in a broad range of organizations both private and governmental.

If you are ready for a human services career that is challenging and offers a wide range of rewards, the Bachelor of Social Work degree is the place to start. I invite you to explore the social work major at Youngstown State University.

## DEPARTMENT CONTACT INFORMATION

- BSW Program Coordinator: Dr. Dana Davis: (330) 941-3381  
ddavis05@ysu.edu
- Social Work Department Chairman: Dr. Dennis Morawski: (330) 941-3774  
dpmorawski@ysu.edu
- Social Work Department Office: (330) 941-1598

## BSW Program Mission

The Bachelor of Social Work Program at Youngstown State University has as its primary mission the educational preparation of students for beginning, competent, generalist social work practice.

The Bachelor of Social Work Program at Youngstown State University prepares graduates to assume professional roles in addressing social problems that are related to the economic and social conditions of the Youngstown region. Conditions of poverty, unemployment, underemployment, racial and ethnic disparities and demands for service exist in the region. Racial and

ethnic minorities, women and children are particularly vulnerable groups who are over represented with regard to disparate social and economic conditions. The Department of Social Work is committed to raising the consciousness of students with regard to these conditions as well as increasing their understanding of how vulnerable groups are often the target of the aforementioned injustices. Exposing students to these problems increases understanding and enhances the potential for thoughtful solutions and remedies.

The Bachelor of Social Work Program at Youngstown State University offers education preparation that enables students to integrate the knowledge, values, and skills of the social work profession into competent practice with individuals, families, groups, institutions, organizations, and communities. This preparation also enables students to apply their understanding of the social work profession in a broad range of client service settings with a variety of groups and presenting problems. As entry level practitioners, graduates are capable of delivering social services in a manner that is consistent with the values and ethics of the social work profession. Ultimately, students recognize their responsibility to continue their professional growth and development to include the incorporation of the latest technologies in their practice.

The mission, purpose, and philosophy of the Bachelor of Social Work Program at Youngstown State University are consistent with the overall institutional mission. The institutional mission is “dedicated to encouraging public service . . . promoting and understanding diversity . . . and advancing the intellectual, cultural and economic life of the state and region.” The Bachelor of Social Work Program embraces the institution’s commitment to address the needs of the region it which it is located.

## BSW Program Goals

1. Prepare students for beginning, generalist social work practice.
2. Provide students with the ability to integrate the knowledge, values and skills of the social work profession into competent practice with individuals, families, groups, organizations and communities.
3. Develop the ability of students to work with a diversity of clients, presenting problems, and social service delivery systems.
4. Facilitate the development of core values and ethics of the social work profession.
5. Prepare students to understand and to address issues pertaining to social and economic justice to include poverty, oppression, racism and discrimination.
6. Prepare students to sustain their effectiveness by instilling the value of continuing professional growth and development.

## ADMISSION AND PROGRESSION

### Pre-Social Work

Students enter the BSW program by declaring themselves as pre-social work majors and begin progress toward a degree by enrolling in General Education Requirement, support, and pre-social work courses. These courses are typically completed in the freshman and sophomore years. Pre-social work courses include the following:

- Intro to the BCHHS (HAHS 1500)
- College Writing 1 & 2 (ENGL 1550 & 1550)
- Introduction to Sociology (SOC 1500)
- General Psychology (PSYC 1560)
- Communications Foundation (CMST 1545)

Critical Thinking (PHIL 1565)

World Religions (REL 2601)

American Government (POL 1560)

Professional Ethics (PHIL 2625)

Introduction to Social Work (SCWK 1510)

Health Issues for Social Workers (SCWK 2600)

Social Work Processes (SCWK 2622)

American Social Welfare History (SCWK 2641)

Human Behavior and the Social Environment 1 & 2 (SCWK 2642 & 2644)

Students also select GER math, science, and general education courses as they complete pre-social work requirements.

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Neither admission to the University nor enrollment in social work courses as a pre-social work major guarantees full admission to the social work major. Full admission to the major is required to enroll in upper-division social work classes. Pre-social work majors who are not formally admitted to the social work program will be unable to obtain a permit to register for Social Work 3736 and subsequent social work courses for which Social Work 3736 is a prerequisite. To be admitted to the program as a social work major, pre-social work majors must meet the following requirements:

### Social Work Major

To gain entry into upper-division social work courses beginning with SCWK 3736 Social Work Methods with Individuals, students must be formally admitted to the social work major. To be admitted to the social work major, students must be declared pre-social work majors and meet the following requirements:

1. Complete all pre-social work courses with a C or better.
2. Possess an overall GPA of 2.5 or better.
3. Submit a completed Social Work Program Admission Application (available online or from the Department of Social Work) before the fourth week of the semester preceding the semester for which admission is sought.
4. Participate in an admission interview and be approved for admission by the BSW Program Admission Committee.

### ADVISORS

Ms. Jennifer Meyers (330) 941-3323 [jlmyers09@ysu.edu](mailto:jlmyers09@ysu.edu)

Dr. Dana Davis (330) 941-3381 [ddavis05@ysu.edu](mailto:ddavis05@ysu.edu)

### ACCREDITATION

The Bachelor of Social Work program at Youngstown State University is fully accredited by the Council on Social Work Education (<http://www.cswe.org>). The program was originally accredited in 1990, has remained accredited to-date, and is due for re-accreditation in 2021. Graduates of the BSW program are eligible for social work licensing in the State of Ohio. In 2016 YSU seventy-seven percent of students taking the exam passed on their first attempt.

### Program Locations

The Bachelor of Social Work program is available on the main (Youngstown) campus. This program is also available in partnership with Lakeland County Community College in Kirtland, Ohio and Lorain County Community College in Elyria, Ohio. For more specific information pertaining to the BSW program at the partnership sites contact the following program coordinators:

Lakeland CCC: Ms. Tami Holcomb [twholcomb@ysu.edu](mailto:twholcomb@ysu.edu)

Lorain CCC: Ms. Karla Wyant kawyant@ysu.edu

The Bachelor of Social Work program at all sites is accredited by the Council on Social Work education.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
Core Competencies		
ENGL 1550	Writing 1 (Completed in advance of entering the social work major)	3
ENGL 1551	Writing 2 (Completed in advance of entering the social work major.)	3
CMST 1545	Communication Foundations (Completed in advance of entering the social work major.)	3
MATH 2623 or STAT 2625	Quantitative Reasoning Stat Lit and Crit Reasoning	3
Social and Personal Awareness		3
Natural Science		3
Natural Science with Lab		4
<b>Pre-Social Work Requirements</b>		
The following courses are also completed in advance of entering the social work major.		
SOC 1500	Introduction to Sociology	3
PHIL 1565	Critical Thinking	3
PHIL 2625	Introduction to Professional Ethics	3
POL 1560	American Government	3
PSYC 1560	General Psychology	3
REL 2601	Introduction to World Religions	3
SCWK 1510	Introduction to Social Work	3
SCWK 2600	Health Issues for Social Work Practice	3
SCWK 2622	Social Work Processes	3
SCWK 2641	American Social Welfare	3
SCWK 2642	Human Behavior and the Social Environment for Social Workers 1	3
SCWK 2644	Human Behavior and the Social Environment for Social Workers 2	3
<b>Social Work Major Requirements</b>		
The following courses are completed in advance of the field internship SCWK 4825.		
SCWK 3736	Social Work Methods with Individuals	3
SCWK 3750	Analysis of Social Work Practice Data (May substitute STAT 2625)	3
SCWK 3760	Research Methods for Social Workers	3
SCWK 5820	Social Policy	3
Select one of the following:		3
SCWK 3726	Child Welfare and Case Planning	
SCWK 3727	Child Welfare Permanency Planning	
SCWK 3728	Social Services for Children	
SCWK 3730	Social Services and the Aged	
SCWK 3731	Social Services and the Disabled	
SCWK 4860	Seminar Special Topics in Social Work	
The following courses may be taken concurrently with the field work in social services SCWK 4825:		
SCWK 4825	Field Work in Social Services (SCWK 4825 is taken 2 consecutive semester at 6 semester hours each.)	12
SCWK 3737	Social Work Methods with Groups	3
SCWK 3738	Social Work Methods with Families	3

SCWK 3740	Mental Health and Addictions (Mental Health and Addictions)	3
SCWK 5822	Social Work Methods with Organizations and Communities	3
SCWK 5823	Cultural Diversity in Practice	3
SCWK 4826	Integrated Field Work Seminar (Must be taken concurrently with SCWK 4825 Field Work in Social Services. See course descriptions for pre-requisites.)	3
SCWK 4827	Integrated Capstone Seminar (Must be taken concurrently with SCWK 4825 Field Work in Social Services. See course descriptions for pre-requisites.)	3
<b>Electives</b>		
Electives		12
<b>Total Semester Hours</b>		<b>120</b>
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
ENGL 1550	Writing 1	3
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
POL 1560	American Government	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
SCWK 1510	Introduction to Social Work	3
Natural Science + Lab		4
PHIL 1565	Critical Thinking	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
SCWK 2622	Social Work Processes	3
SCWK 2641	American Social Welfare	3
SCWK 2642	Human Behavior and the Social Environment for Social Workers 1	3
PHIL 2625	Introduction to Professional Ethics	3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
SCWK 2644	Human Behavior and the Social Environment for Social Workers 2	3
SCWK 2600	Health Issues for Social Work Practice	3
Natural Science		3
MATH 2623 or STAT 2625	Quantitative Reasoning or Stat Lit and Crit Reasoning	3
Social & Personal Awareness		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
SCWK 3736	Social Work Methods with Individuals	3
SCWK 3750	Analysis of Social Work Practice Data (may substitute STAT 2625)	3
SCWK 5820	Social Policy	3
SCWK 3740	Mental Health and Addictions (Mental Health and Addictions)	3

Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
Elective		3
SCWK 3760	Research Methods for Social Workers	3
SCWK 3728	Social Services for Children	3
or SCWK 3726	or Child Welfare and Case Planning	
or SCWK 3727	or Child Welfare Permanency Planning	
or SCWK 3730	or Social Services and the Aged	
or SCWK 3731	or Social Services and the Disabled	
or SCWK 4860	or Seminar Special Topics in Social Work	
SCWK 3737	Social Work Methods with Groups	3
SCWK 3738	Social Work Methods with Families	3
Request a Graduation Evaluation after completing 80-85 s.h. from the BCHHS Advising /Dean's Office, 2104 Cushwa Hall, (330) 941-3321.		
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
SCWK 4825	Field Work in Social Services	6
SCWK 4826	Integrated Field Work Seminar	3
Elective		3
SCWK 3738	Social Work Methods with Families	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
SCWK 4825	Field Work in Social Services	6
SCWK 4827	Integrated Capstone Seminar	3
SCWK 5822	Social Work Methods with Organizations and Communities	3
SCWK 5823	Cultural Diversity in Practice	3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

The BSW program at Youngstown State University applies a competency-based curriculum that develops in students core competencies of generalist social work practice as defined by the Council on Social Work Education. Upon graduating from the BSW program, students are expected to:

- 1a. Demonstrate professional behavior.
- 1b. Demonstrate ethical behavior.
2. Engage diversity and difference in practice.
3. Advance human rights and social, economic, and environmental justice.
- 4a. Engage in practice-informed research and research-informed practice.
- 4b. Apply critical thinking.
5. Engage in policy practice.
6. Engage with individuals, families, groups, organizations, and communities.
7. Assess individuals, families, groups, organizations, and communities.
8. Intervene with individuals, families, groups, organizations, and communities.
9. Evaluate practice with individuals, families, groups, organizations, and communities.
10. Apply knowledge of human behavior and the social environment.

## Minor in Social Work

COURSE	TITLE	S.H.
<b>Required Courses</b>		
SCWK 1510	Introduction to Social Work	3
SCWK 2622	Social Work Processes	3
SCWK 2641	American Social Welfare	3
SCWK 2642	Human Behavior and the Social Environment for Social Workers 1	3
SCWK 5823	Cultural Diversity in Practice (Request permission from advisor)	3
Select one of the following:		3
SCWK 2600	Health Issues for Social Work Practice	
SCWK 3726	Child Welfare and Case Planning	
SCWK 3727	Child Welfare Permanency Planning	
SCWK 3728	Social Services for Children	
SCWK 3730	Social Services and the Aged	
SCWK 3731	Social Services and the Disabled	
SCWK 4860	Seminar Special Topics in Social Work	
<b>Total Semester Hours</b>		<b>18</b>

## Pre-Social Work

Students enter the BSW program by declaring themselves as pre-social work majors and begin progress toward a degree by enrolling in General Education Requirements, support, and pre-social work courses. These courses are typically completed in the freshman and sophomore years. Neither admission to the University nor enrollment in social work courses as a pre-social work major guarantees full admission to the social work program.

Pre-Social Work courses include the following:

COURSE	TITLE	S.H.
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
SOC 1500	Introduction to Sociology	3
CMST 1545	Communication Foundations	3
PSYC 1560	General Psychology	3
SCWK 1510	Introduction to Social Work	3
POL 1560	American Government	3
PHIL 1565	Critical Thinking	3
SCWK 2600	Health Issues for Social Work Practice	3
REL 2601	Introduction to World Religions	3
SCWK 2622	Social Work Processes	3
PHIL 2625	Introduction to Professional Ethics	3
SCWK 2641	American Social Welfare	3
SCWK 2642	Human Behavior and the Social Environment for Social Workers 1	3
SCWK 2644	Human Behavior and the Social Environment for Social Workers 2	3
<b>Total Semester Hours</b>		<b>47</b>

Students also select General Education math, natural science, social and personal awareness courses as well as electives as they complete pre-social work requirements the freshman and sophomore years of the program.

COURSE	TITLE	S.H.
MATH 2623	Quantitative Reasoning	3



Natural Science With Lab	4
Natural Science	3
Social & Personal Awareness	3
Electives	13
<b>Total Semester Hours</b>	<b>26</b>

## Minor in Aerospace Studies (Air Force ROTC)

The Air Force ROTC program, offered through an agreement with Kent State University, provides professional preparation and leadership training for students considering service as officers in the U.S. Air Force. The program also offers information on Air Force career opportunities and the role of the military in the American society. Scholarships are available to help students complete their bachelor's and/or master's degrees.

### Overview

There are two primary AFROTC programs under which officer candidates may earn their commissions.

- The first is a four-year AFROTC program. It includes membership in (and completion of) the General Military Course (GMC), a four-week field training course, and the Professional Officer Course (POC).
- The second is a two-year program designed for students who have two years of academic work remaining. In the two-year program, students are selected to participate in the POC program and attend a five-week field training course, which includes coursework covered during the freshman and sophomore years.

Both programs result in a commission as a Second Lieutenant in the United States Air Force. A minor in aerospace studies is available in consultation with the academic major advisor and the Aerospace Studies Department.

### Registering

Courses are normally taken for YSU academic credit as part of the students' electives. Entering freshmen and sophomores may register for aerospace studies courses at the same time, and in the same manner, as they enroll in their other YSU courses. Juniors and seniors wishing to enroll in AFROTC should call the AFROTC Unit Admissions Officer prior to enrollment to discuss the particular requirements. Students enrolled in the program must travel to Kent State University once a week to attend the courses. Arrangements can be made for carpools or pick-up if the students do not have transportation.

### The General Military Course

The General Military Course (GMC) is offered in four-sequenced lower-division aerospace studies courses. Each course consists of one hour of academic instruction per week and 15 leadership laboratory contact hours per semester. Non-scholarship membership in the GMC does not confer any military status or commitment upon the students, but affords them the opportunity to learn about the Air Force and its role in the American society. Students who do not want commissions may take the aerospace studies courses for academic credit only. There is no military obligation incurred by enrolling in the GMC.

### The Professional Officer Course

The Professional Officer Course (POC) is a four-part upper division aerospace studies course. Each course consists of three hours of academic instruction per week and 15 leadership laboratory contact hours per semester. Entrance into POC is limited to qualified students desiring to compete for Air Force commissions. Enrollment in this program is based upon a cumulative grade point average, physical qualifications, and leadership.

## Veterans

Veterans with previous honorable, active U.S. military service who wish to enroll in the POC may be eligible for a waiver of either the GMC or its equivalent as an entrance requirement.

## Uniforms and Textbooks

AFROTC uniforms and textbooks are provided at no charge. Textbooks are returned upon completion of each academic year or upon withdrawal from the course. Uniforms are returned upon completion of the program or withdrawal from the course.

## Financial Assistance

Students who demonstrate academic and leadership potential may be selected by the professor of aerospace studies to compete for scholarships. The scholarship award includes tuition, textbook allowance, some course fees, and a monthly tax-free stipend.

Scholarship Statement of Understanding

Air Force ROTC scholarship recipients must meet and maintain certain academic and military retention standards and serve in the active-duty Air Force after graduation.

## Contact Information

For further information, contact:

Department of Aerospace Studies  
AFROTC DET 630  
104 Terrace Hall  
Kent State University  
Kent, Ohio 44242  
(330) 672-2182  
or e-mail us at: det630@kent.edu.

The curriculum in aerospace studies is divided into two parts:

- the General Military Course, usually taken during the freshman and sophomore years
- the Professional Officer Course, normally taken during the junior and senior years (see Overview, above)

Air Force officers are assigned as full-time faculty members and teach all aerospace studies courses. The courses include one hour of academic instruction and a 1½-hour leadership laboratory each week. All courses are taught at the Kent State University main campus in Kent, Ohio. Non-scholarship students incur no military obligation when enrolled in freshman- and sophomore-level courses.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
AERO 1501	Foundation of United States Air Force 1	1
AERO 1503	Leadership Laboratory	1
<b>Semester Hours</b>		<b>2</b>
<b>Spring</b>		
AERO 1502	Foundation of United States Air Force 2	1
AERO 1504	Leadership Laboratory	1
<b>Semester Hours</b>		<b>2</b>
<b>Year 2</b>		
<b>Fall</b>		
AERO 2601	Evolution of United States Air Force and Space Power 1	1

AERO 2603	Leadership Laboratory	1
<b>Semester Hours</b>		<b>2</b>
<b>Spring</b>		
AERO 2602	Evolution of United States Air Force Air and Space Power 2	1
AERO 2604	Leadership Laboratory	1
<b>Semester Hours</b>		<b>2</b>
<b>Year 3</b>		
<b>Fall</b>		
AERO 3701	Leadership Studies 1	3
AERO 3703	Leadership Laboratory	1
<b>Semester Hours</b>		<b>4</b>
<b>Spring</b>		
AERO 3702	Leadership Studies 2	3
AERO 3704	Leadership Laboratory	1
<b>Semester Hours</b>		<b>4</b>
<b>Year 4</b>		
<b>Fall</b>		
AERO 4801	Defense Studies/Preparation for Active Duty 1	3
AERO 4803	Leadership Laboratory	1
AERO 4802	Defense Studies/Preparation for Active Duty 2	3
AERO 4804	Leadership Laboratory	1
<b>Semester Hours</b>		<b>8</b>
<b>Total Semester Hours</b>		<b>24</b>

undergraduate and graduate, enrolled in all its programs. The College fosters intellectual growth through integration of teaching, scholarship, and service that expands the talents of its constituencies - including students, faculty, business, industry, and government - with synergistic activities in and beyond the classroom; prepares our graduates for a multidisciplinary world through a flexible and diverse curriculum; and meets the need for a well-educated, skilled workforce for economic growth with industrial partnerships, research, and scholarship.

### Core Values

The College of STEM fully subscribes to the core values of the University: the centrality of students; excellence and innovation; integrity/human dignity; and collegiality and public engagement.

- We are a learning-centered college committed to the intellectual, ethical, and career growth of all learners, both inside and outside the classroom.
- We foster intellectual inquiry, exploration, and discovery that transcends traditional boundaries and facilitates interdisciplinary scholarship. We expand and apply knowledge and encourage creativity through research and scholarship.
- We are committed to the social development of students, by promoting ethical behavior and collegiality in all endeavors, and to enrichment of the University through diversity of the faculty and student body.
- We enhance the quality of life and economic health of the region, the state, and beyond by providing students with the knowledge and skills to meet the challenges of modern society, and by providing business, industry, government, K-12 schools, and the public with technical expertise and leadership to support innovation and growth.

## The College of Science, Technology, Engineering, and Mathematics

Wim Steelant, Ph.D, Dean

Moser Hall 2200

(330) 941-3009

The College of Science, Technology, Engineering, and Mathematics (STEM) is the academic unit of the University comprising the following departments:

- Biological Sciences
- Chemistry
- Civil/Environmental and Chemical Engineering
- Computer Science and Information Systems
- Electrical and Computer Engineering
- Engineering Technology
- Geological and Environmental Sciences
- Mechanical and Industrial Engineering
- Mathematics and Statistics
- Physics and Astronomy

Formed in 2007 through an administrative reorganization, the STEM College is committed to strengthening core areas of its departments as well as facilitating collaborations between its faculties and students at all levels in their disciplines. Its formation is a bold initiative in coupling higher education to economic development by enhancing research activities and collaboration with industry.

### College of STEM Mission

The College of STEM is committed to furthering the mission of Youngstown State University by delivering integrated programs of excellence to an engaged learning community. The College uses state-of-the-art technology in teaching and research to meet the educational objectives of students, both

### Degrees/Programs

The College offers four bachelor's degrees:

- Bachelor of Arts (BA)
- Bachelor of Engineering (BE)
- Bachelor of Science (BS)
- Bachelor of Science in Applied Science (BSAS)

The College offers two associate degrees:

- Associate of Applied Science (AAS)
- Associate of Technical Studies (ATS)

Also, in conjunction with FirstEnergy Corporation, the power plant technology option is available. Please visit our website (<http://www.yzu.edu/powersystems>) for more information regarding the lineworker and power plant technology programs.

A certificate program is offered in construction management technology.

Students whose needs are not met by existing conventional programs may wish to investigate and apply for the Individualized Curriculum Program (see Academic Policies and Procedures).

### Admissions

Students who are calculus-ready will be directly admitted into the academic department in their major. Those who are not will remain under the guidance of the professional advising staff until they are department-ready. For more details on the preparation and criteria of the STEM standards, please check with the Advising Center in the College of STEM.

### Degree Requirements

Requirements for completion of a baccalaureate degree and an associate degree within the College of STEM include all University requirements detailed in the Academic Policies and Procedures section of the Undergraduate Catalog (i.e., graduation and general education requirements, course levels requirements including majors [and minors, where applicable], grade point average, residency, and degree applications). Specific requirements for each

major in the College of STEM are listed by department or school. Consult the Rayen School of Engineering and Engineering Technology section in the Undergraduate Catalog for additional graduation requirements for the BE degree.

## Minors

Minors are not required for every program/major in the STEM College. Consult the curricula listed in the department sections of the catalog for specific requirements for each major. For programs/majors requiring minors, at least eighteen (18) semester hours are required for the minor, and one-third of the hours must be upper-division.

## Foreign Language Requirement for the Bachelor's Degree

All candidates for the BA degrees and the BS degree in math in the College are required to complete the elementary (1550: Elementary Foreign Language) and the intermediate level (2600: Intermediate Foreign Language) of the same foreign language. Students with a foreign language background may desire to take the foreign language placement test in order to place into the intermediate level (2600) or satisfy the requirement. It may be possible to satisfy the foreign language requirement through appropriate college transfer coursework and credit by exam.

Candidates for the BS entering after fall 2012 (except Math majors), candidates for the BE degree, and candidates for the BSAS degree do not have a foreign language requirement.

For more information, visit the College of Science, Technology, Engineering, and Mathematics (STEM) (<http://www.ysu.edu/academics/science-technology-engineering-mathematics>).

# Rayen School of Engineering and Engineering Technology

## Accreditation

The baccalaureate degree programs in the Rayen School of Engineering and Engineering Technology are accredited by the ETAC Accreditation Commission of ABET, <http://www.abet.org> are:

- chemical engineering (jointly accredited by the American Institute of Chemical Engineers)
- civil engineering
- electrical engineering
- industrial and systems engineering
- mechanical engineering

Those programs accredited by the ETAC Accreditation Commission of ABET, <http://www.abet.org> are:

- civil and construction engineering technology
- electrical engineering technology
- mechanical engineering technology

## Associate of Applied Science Degree

Associate of Applied Science majors include:

- civil and construction engineering technology
- computer information systems and information technology
- electrical engineering technology
- mechanical engineering technology

These majors offer a 2+2 degree program design leading to the Bachelor of Science in Applied Science degree. Consult the department sections of the Undergraduate Catalog for specific course information.

## School of Engineering Disqualification

A student who earns two grades of D, F, or NC in the same course(s) listed below will be disqualified from transferring into a degree-granting engineering major. These courses are:

COURSE	TITLE	S.H.
MATH 1513	Algebra and Transcendental Function	5
MATH 1571	Calculus 1	4
ENGL 1540	Introduction to College Writing	3
ENGL 1550	Writing 1	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
PHYS 2610	General Physics 1	4

## Enrollment in Restricted Engineering Courses

Enrollment in most engineering and engineering technology courses is restricted to those admitted to a degree-granting engineering major. A few engineering courses are not restricted. They are:

COURSE	TITLE	S.H.
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
CEEN 2610 & 2610L	Surveying and Surveying Laboratory	4
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
MECH 1560	Engineering Communication with CAD	2

All other courses require admission to a professional engineering major unless approved by the chair of the engineering department and coordinator of the engineering program offering the course and by the STEM College dean. Students will be administratively withdrawn from restricted courses in which they are improperly enrolled.

## Bachelor of Engineering Degree (BE) Graduation Policies

All engineering programs have pre-college course requirements listed in the chart at the end of this section that should be completed in high school or in equivalent course work at the college level. YSU offers the equivalent high school courses for those not meeting these pre-college requirements. These high school deficiencies do not count toward graduation requirements and should be completed during the first two years of enrollment.

Each engineering program has minimum graduation requirements. These requirements can affect a student's enrollment in senior-level classes. If a senior-level student reaches a point where it is not possible to achieve graduation requirements, further enrollment in engineering classes will be denied. In addition to the overall recalculated C average required by the University, an unrecalculated C average in the major is required. Also, an unrecalculated C average in all engineering courses is required in all majors. **These minimum graduation requirements are referred to as a triple C requirement.**

## Chemical Engineering

A student who is failing to meet the triple C requirement prior to the senior year will be denied enrollment in CHEN 4887 Process and Plant Design 1.

## Civil and Environmental Engineering

A student who is failing to meet the triple C requirement prior to the senior year will be denied enrollment in:

COURSE	TITLE	S.H.
CEEN 4863	Integrated Design Project	3
CEEN 5837	Environmental Engineering Design	3
CEEN 5855	Reinforced Concrete Design	3
CEEN 4881	Geotechnical Engineering	3

## Electrical and Computer Engineering

Students who have not earned a C or better grade in ECEN 3741 Electromagnetic Fields 1 and ECEN 3742 Electromagnetic Fields 2 and students who are failing to meet the triple C requirement will be denied enrollment in senior level courses.

## Industrial and Systems Engineering

A student who is failing to meet the triple C requirement will be denied enrollment in 4000- and 5000-level ISEN courses.

## Mechanical Engineering

A student who is failing to meet the triple C requirement will be denied permission to register in any junior level mechanical engineering course until remedial measures, as required by the department chair, are agreed to by the student. Also, at the end of the junior year, the student will be denied permission to register in MECH 4808 Mechanical Systems Design 1, MECH 4808L Mechanical Systems Design Laboratory, and MECH 4809 Mechanical Systems Design 2, until the triple C requirement is met.

## Cooperative Education/Professional Practice

Several programs leading to a baccalaureate degree offer students an optional cooperative education program. Co-op students are required to complete the same academic program for graduation as those not participating in the cooperative education experience. Credit hours awarded for the cooperative education experience are considered "add-on" hours to the degree. Professional practice opportunities include working with faculty on grants and research projects as well as internship opportunities with local industry. A professional practice coordinator is available to assist in student placement.

The table below shows the minimum pre-college requirements:

COURSE	TITLE	S.H.
English		3
Algebra 1 and 2		2
Geometry		1
Trigonometry		.5
Chemistry		1
Physics		1
Other		6.5

For more information, visit the [Rayen School of Engineering](#).

## Department of Biological Sciences

(330) 941-3601

### Room 4037 Ward Beecher Science Hall

Courses in the Department of Biological Sciences may be applied toward a Bachelor of Science or a Bachelor of Arts degree. The department offers specialized courses in three major divisions:

- molecular biology and microbiology
- physiology and anatomy
- evolution, ecology and environmental biology

The department offers courses to prepare a student for a wide variety of fields and future careers including:

- dentistry
- botany
- health-related careers
- physical therapy
- medicine
- veterinary medicine
- medical technology
- microbiology
- molecular biology
- biomedical research
- biotechnology

Advisement is available concerning course selection appropriate for a specific field in biology and in the choice of a minor or minors. These degrees may be earned in eight semesters if students average 16 hours per semester.

For more information, visit the [Department of Biological Sciences](#).

### Chair

**Gary R. Walker**, Ph.D., Professor, Chair

### Professor

**David K. Asch**, Ph.D., Associate Professor

**Deborah Fairchild Benyo**, Ph.D., Assistant Professor

**Michael Butcher**, Ph.D., Associate Professor

**Jonathan J. Caguiat**, Ph.D., Associate Professor

**Chester R. Cooper**, Ph.D., Professor

**Thomas P. Diggins**, Ph.D., Professor

**Diana L. Fagan**, Ph.D., Professor

**Jill M. Gifford**, Ph.D., Associate Professor

**Carl G. Johnston**, Ph.D., Professor

**Johanna Krontiris-Litowitz**, Ph.D., Professor

**Heather E. Lorimer**, Ph.D., Associate Professor

**Xiangjia Min**, Ph.D., Associate Professor

**Ian J. Renne**, Ph.D., Associate Professor

**Mark D. Womble**, Ph.D., Professor

## Majors

- BS in Biological Sciences (p. 465)
- BA in Biological Sciences (p. 464)

## Certificates

- Certificate in Anatomy and Physiology (p. 469)
- Certificate in Biomedical Research (p. 468)
- Certificate in Molecular and Biotechnology (p. 469)

## Minors

- Biological Sciences Minor (p. 468)

### BIOL 1505 Biology and the Modern World 3 s.h.

Biology applied to critical issues of today's society. Focus on the scientific method as relevant to modern biology issues. Not applicable to the Biology major.

**Gen Ed:** Natural Science.

### BIOL 1505H Honors Biology and Modern World 3 s.h.

Biology applied to critical issues of today's society. Focus on the scientific method as relevant to modern biology issues. Not applicable to the Biology major.

**Gen Ed:** Natural Science.

### BIOL 1505L Biology and the Modern World Laboratory 1 s.h.

Student investigations in biological phenomena using a variety of laboratory approaches focused on a single theme or concept using the scientific method. Satisfies the Natural Science Laboratory requirement. Not applicable to the Biology major.

### BIOL 1545 Allied Health Anatomy and Physiology 5 s.h.

Explores the structure and function of the human body and its organ systems. Diseases and their relationship to various physiological systems. Four hours lecture, two hours lab. Not applicable to the Biology major.

**Prereq.:** High school biology and chemistry, or equivalent.

**Gen Ed:** Natural Science.

### BIOL 1545L Allied Health Anatomy and Physiology Laboratory 0 s.h.

Allied Health Anatomy and Physiology Laboratory.

### BIOL 1551 Anatomy and Physiology 1 3 s.h.

Structure, function, and clinical applications of the integument, musculature, skeletal, and nervous systems. Targeted for students in nursing and associated health professions. Three hours of lecture. Not applicable to the Biology major.

**Prereq.:** High school biology, CHEM 1501 or equivalent, and MATH 1501 or equivalent.

**Gen Ed:** Natural Science.

### BIOL 1551L Anatomy 1 Laboratory for Health Professions 1 s.h.

Anatomical study of skeletal, muscular, and nervous systems. For students in nursing and associated health professions. Two hours of laboratory per week. Not applicable to the Biology major. BIOL 1551 must be taken either previous or concurrent.

### BIOL 1552 Anatomy and Physiology 2 4 s.h.

Structure, function, and clinical applications of the endocrine, cardiovascular, respiratory, renal, digestive, and reproductive systems. Targeted for students in nursing and associated health professions. Three hours lecture, two hours lab. Not applicable to the Biology major.

**Prereq.:** BIOL 1551.

**Gen Ed:** Natural Science.

### BIOL 1552L Anatomy and Physiology 2 Laboratory 0 s.h.

Anatomy and Physiology 2 Laboratory.

### BIOL 1560 Microbiology for the Health Professions 2 s.h.

Characteristics, epidemiology, and pathology of viruses, bacteria, and protozoa of medical significance. Other topics dealing with the control of microorganisms and food microbiology will be covered. Not applicable to a biology major. Two hours of lecture. Must be taken concurrent with BIOL 1560L or substitute.

### BIOL 1560L Microbiology Laboratory for Health Professions 1 s.h.

Microscopy, cultivation, and identification of bacteria. Microbiology of foods. Disinfection techniques. Not applicable to a biology major. Three hours of laboratory per week. Must be taken concurrent with BIOL 1560.

### BIOL 2601 General Biology: Molecules and Cells 4 s.h.

The chemical and physical foundations of life, structure and function of cells and organelles, metabolism, basic molecular biology and inheritance, and principles of evolution. Three hours of lecture, three hours of lab per week.

**Prereq.:** CHEM 1515 or concurrent enrollment in CHEM 1515.

**Gen Ed:** Natural Science.

### BIOL 2601H Honors General Biology Molecules and Cells 4 s.h.

The chemical and physical foundations of life, structure and function of cells and organelles, metabolism, basic molecular biology and inheritance, and principles of evolution. Three hours of lecture, three hours of lab per week.

**Prereq.:** CHEM 1515 or concurrent enrollment in CHEM 1515.

**Gen Ed:** Natural Science.

### BIOL 2601L General Biology: Molecules and Cells Laboratory 0 s.h.

General Biology: Molecules and Cells Laboratory.

### BIOL 2602 General Biology: Organisms and Ecology 4 s.h.

The structure and function of plants and animals. Examination of the structure and functioning of organismic communities and ecosystems. Required of all biological sciences majors. Three hours of lecture, three hours of lab per week.

**Prereq.:** BIOL 2601 and CHEM 1515.

**Gen Ed:** Natural Science.

### BIOL 2602H Honors General Biology Organisms and Ecology 4 s.h.

The structure and function of plants and animals. Examination of the structure and functioning of organismic communities and ecosystems. Required of all biological sciences majors. Three hours of lecture, three hours of lab per week.

**Prereq.:** BIOL 2601 and CHEM 1515.

**Gen Ed:** Natural Science.

### BIOL 2602L General Biology: Organisms and Ecology Laboratory 0 s.h.

General Biology: Organisms and Ecology Laboratory.

### BIOL 2603 Integrated Biology for BS/MD 4 s.h.

**Prereq.:** admittance to the BS/MD program, BaccMed program, BS in Biochemistry, or Electrical and Computer Engineering with a Biomedical emphasis.

### BIOL 3701 Biomathematics Seminar 1 s.h.

Introduction to interdisciplinary research in Biology and Mathematics. Topics include current research by faculty and students, cross disciplinary communication, report writing, technical presentations, literature reading, laboratory techniques and safety. May be repeated once. Listed also as MATH 3701.

**Prereq.:** MATH 1571 or BIOL 2601 or BIOL 2602.

### BIOL 3702 Microbiology 4 s.h.

Fundamentals of the biology of microbes. The principles of microbial structure, function, reproduction, metabolism, genetics, phylogeny, host-parasite relationships, and immunity. Fundamental technical skills acquired through laboratory experiences. Three hours lecture, three hours laboratory.

**Prereq.:** BIOL 2601 or BIOL 2603 and concurrent enrollment in BIOL 3702L.

### BIOL 3702L Microbiology Laboratory 0 s.h.

Microbiology Laboratory.

### BIOL 3703 Clinical Immunology 3 s.h.

Fundamentals of immunology, including both humoral and cellular immunological responses. Applications of immunological methods in medical research and patient treatment.

**Prereq.:** BIOL 2601 or BIOL 2603 and BIOL 3702 recommended.

### BIOL 3703L Clinical Immunology Laboratory 1 s.h.

VDRL, ASO, febrile, latex, pregnancy, and viral tests; flocculation, precipitation, complement fixation, and titration procedures for various diseases. Three hours lab per week. Identical with MLS 3703L and MLT 3703L.

**Prereq.:** BIOL 2602.

**Concurrent with:** BIOL 3703.

**BIOL 3704 Biological Anthropology 3 s.h.**

The physical origins and development of the human species as a member of the primate order and the biological bases of human differences disclosed by human paleontology and archaeology. Also listed with ANTH 3703.

**Prereq.:** ANTH 1500 and BIOL 2601.

**BIOL 3705 Introduction to Human Gross Anatomy 4 s.h.**

Overview of human structure, using a regional approach to examine the functional anatomy of the musculoskeletal, nervous, and visceral systems. Three hours lecture, two hours lab.

**Prereq.:** BIOL 2602 or BIOL 2603.

**BIOL 3705L Introduction to Human Gross Anatomy Laboratory 0 s.h.**

Introduction to Human Gross Anatomy Laboratory.

**BIOL 3710 Mammalian Anatomy 3 s.h.**

Composite study of the anatomical systems of mammals, based on the cat. One hour lecture, four hours lab.

**Prereq.:** BIOL 2602.

**BIOL 3710L Mammalian Anatomy Laboratory 0 s.h.**

Mammalian Anatomy Laboratory.

**BIOL 3711 Cell Biology: Fine Structure 3 s.h.**

Theoretical and conceptual background necessary for understanding cellular structure-function relationships. Basic architecture of the cell, various organelles. The basic behavior of cells analyzed illustrating the integrative interaction of organelle systems.

**Prereq.:** BIOL 2601 or BIOL 2603.

**BIOL 3716 Molecular Microbiology 1: Nucleic Acids 4 s.h.**

Isolation and characterization of DNA and RNA from microbes with an emphasis on cloning, sequencing, structural characterization, expression, and phylogenetic analysis. Two hours lecture, six hours laboratory.

**Prereq.:** BIOL 3702 and permission of the instructor.

**BIOL 3717 Molecular Microbiology 2 4 s.h.**

Protein Biology. Develops the analytical skills necessary to conduct molecular biology research in the area of protein analysis and proteomics. Two hours lecture and four hours laboratory per week.

**Prereq.:** BIOL 3702.

**BIOL 3721 Genetics 3 s.h.**

Genetic material, reproductive cycles, sex determination, mitosis, meiosis, mendelism, probability linkage, genes in populations, mutation, evolution.

**Prereq.:** BIOL 2601 or BIOL 2603.

**BIOL 3725 Mammalogy 3 s.h.**

Overview of structure, function, evolutionary history, behavior, ecology, and classification of mammals. Animal groups will be studied from diverse biological points of view. Three hours lecture.

**Prereq.:** BIOL 2601, BIOL 2602.

**BIOL 3730 Human Physiology 4 s.h.**

Concepts of human physiology that focus on the regulation of homeostatic mechanisms by the neural, endocrine, cardiovascular, respiratory, and renal systems. Four hours lecture.

**Prereq.:** BIOL 2602 or BIOL 2603.

**BIOL 3730L Human Physiology Laboratory 1 s.h.**

Experimental approach to the study of human physiology that explores regulation of homeostasis by the neural, endocrine, cardiovascular, respiratory, and renal systems. Three hours laboratory.

**Prereq. or concurrent:** BIOL 3730.

**BIOL 3740 Plant Diversity 4 s.h.**

Examination of the diversity of plant species and their interaction with the environment; the morphology, reproduction and ecology of a wide variety of vascular and nonvascular plants. Three hours lecture, two hours lab.

**Prereq.:** BIOL 2602.

**BIOL 3740L Plant Diversity Laboratory 0 s.h.**

Plant Diversity Laboratory.

**BIOL 3741 Animal Diversity 4 s.h.**

Examination of the diversity of animal species and their interaction with the environment; the morphology, reproduction and ecology of a wide variety of invertebrate and vertebrate phylon. Three hours lecture, two hours lab.

**Prereq.:** BIOL 2602.

**BIOL 3741L Animal Diversity Laboratory 0 s.h.**

Animal Diversity Laboratory.

**BIOL 3745 Plant Physiology 3 s.h.**

Examination of the physiology of higher plants with emphasis on the whole plant aspects as well as on biochemical, cellular and molecular aspects of how plants function including transport and translocation of water and solutes, photosynthesis and respiration, growth and development.

**Prereq.:** BIOL 2602.

**BIOL 3759 Evolution 3 s.h.**

Examination of fundamental evolutionary mechanisms integral to such covered topics as natural selection, drift, genetic variance maintenance, gene flow consequences, phylogenetic resolution, modes of speciation, coevolution, cooperation and mating system structure. Ecological concepts will be integrated throughout.

**Prereq.:** BIOL 2601 and BIOL 2602 or instructor consent.

**BIOL 3762 Field Botany 4 s.h.**

Identification, ecology, and significance of local plants. Two hours lecture, four hours lab.

**Prereq.:** BIOL 2602.

**BIOL 3762L Field Botany Laboratory 0 s.h.**

Field Botany Laboratory.

**BIOL 3775 Comparative Vertebrate Anatomy 3 s.h.**

Comparison of morphology of vertebrates, emphasizing evolutionary development of organ systems. Two hours lecture, three hours lab.

**Prereq.:** BIOL 2602.

**BIOL 3775L Comparative Vertebrate Anatomy Laboratory 0 s.h.**

Comparative Vertebrate Anatomy Laboratory.

**BIOL 3780 General Ecology 5 s.h.**

Examination of ecological principles affecting species distributions, interactions and biodiversity; dynamics of populations, communities and ecosystems; life history evolution; origin, maintenance and loss of genetic variation; mechanisms of speciation and extinction; experimental design and analysis. Three hours lecture, four hours lab.

**Prereq.:** BIOL 2602.

**BIOL 3780L General Ecology Laboratory 0 s.h.**

General Ecology Laboratory.

**BIOL 4800 Bioinformatics 4 s.h.**

Fundamentals of the theories and applications of bioinformatics. Topics include the tools and databases used to analyze DNA and protein sequences and the evolutionary relationships between sequences from different organisms. Three hours of lecture, two hours of lab per week.

**Prereq.:** BIOL 3721.

**BIOL 4800L Bioinformatics Laboratory 0 s.h.**

Bioinformatics Laboratory.

**BIOL 4801 Environmental Microbiology 4 s.h.**

The occurrence, detection, and control of microbes, including bacteria and viruses, in food, water, and the environment. Two hours lecture, four hours lab.

**Prereq.:** BIOL 3702.

**BIOL 4801L Environmental Microbiology Laboratory 0 s.h.**

Environmental Microbiology Laboratory.

**BIOL 4802 Ecology of Lakes 3 s.h.**

A study of the physical, chemical, biological, and ecological structure and function of lake ecosystems.

**Prereq.:** 20 s.h. of BIOL and/or GES, or permission of instructor.

**BIOL 4803 Stream Ecology 3 s.h.**

A study of the physical, chemical, biological, and ecological structure and function of stream ecosystems, and of their associated riparian zones.

**Prereq.:** 20 s.h. of BIOL and/or GES, or permission of instructor.

**BIOL 4804 Aquatic Biology 3 s.h.**

Ecological, physical, and chemical aspects of aquatic ecosystems. Study of the interaction between organisms and their environment.

**Prereq.:** BIOL 3780.

**BIOL 4805 Ichthyology 3 s.h.**

Ecology, evolution, and taxonomy of fishes, especially those of Midwestern United States. Two hours lecture, two hours lab.

**Prereq.:** BIOL 3741.

**BIOL 4805L Ichthyology Laboratory 0 s.h.**

Ichthyology Laboratory.

**BIOL 4806 Ecosystem Field Ecology 4 s.h.**

Students will learn about destination ecosystems, including associated organisms, interactions, physical, chemical, and climatic conditions, culture, and human impacts. Can be taken more than once for different destinations. Students must be in good health, hike, swim, and handle primitive conditions. This course involves travel expenses in addition to lab fees.

**Prereq.:** permission from instructor.

**Coreq.:** 3000-level course.

**BIOL 4809 The Human Microbiome 3 s.h.**

Covers microbial communities and their interactions associated with the human host. Scientific literature on the identity and roles of microbes associated with the human gut, oral cavity, skin, genital-urinary tract and respiratory system will be reviewed, presented, and discussed.

**Prereq.:** BIOL 3702.

**BIOL 4811 Comparative Biomechanics 4 s.h.**

Overview of biomechanical principles involved with the structure and function of animals. Topics include mechanical properties of biomaterials, comparative muscle architecture and physiology, and locomotor mechanisms of human walking and running. Three hours lecture, two hours lab.

**Prereq.:** BIOL 2602 or BIOL 3705, and PHYS 1501 or PHYS 2610.

**BIOL 4811L Comparative Biomechanics Laboratory 0 s.h.**

Comparative Biomechanics Laboratory.

**BIOL 4819 Taxonomy of Flowering Plants 4 s.h.**

Phylogenetics, systematics, geographical distribution, and evolutionary development of herbaceous plants; taxonomic systems based on morphology and biochemistry. Laboratory exercises include the writing of a genus revision. Two hours lecture, four hours lab.

**Prereq.:** BIOL 3740 or consent of instructor.

**BIOL 4819L Taxonomy of Flowering Plants Laboratory 0 s.h.**

Taxonomy of Flowering Plants Laboratory.

**BIOL 4822 Principles of Pharmacology 3 s.h.**

Overview of drugs used for the diagnosis, prevention, and treatment of disease. Topics include mechanisms of action, therapeutic and adverse drug effects, and clinical uses for each drug category.

**Prereq.:** BIOL 3730.

**BIOL 4823 Cancer Biology 2 s.h.**

This course will present the student with the comprehensive body of knowledge concerning cancer biology. It will draw upon all areas of biological sciences; from environmental causal factors to the molecular mechanisms underlying tumor cell formation and development of malignant tumors. The scientific basis of therapies will be explored.

**Prereq.:** Junior standing.

**BIOL 4829 Microbial Physiology 3 s.h.**

This course synthesizes material covered in introductory microbiology and cell and molecular biology. Topics include biomolecule synthesis, molecular biology, bacterial genetics, gene expression, energy production photosynthesis, bacteriophages and microbial stress response.

**Prereq.:** BIOL 3702 or BIOL 3711.

**BIOL 4830 Functional Neuroanatomy 4 s.h.**

An examination of the structure, function, integration, and cellular control of the brain and spinal cord. Three hours lecture, two hours lab.

**Prereq.:** BIOL 3730.

**BIOL 4830L Functional Neuroanatomy Laboratory 0 s.h.**

Functional Neuroanatomy Laboratory.

**BIOL 4834 Advanced Physiology: Integrative Mechanisms 3 s.h.**

Examination of advanced human physiology through a detailed study of selected body systems. Systems examined may include the cardio-vascular, respiratory, and renal systems, exchange dynamics among body fluid compartments, and acid-base balance. Three hours lecture.

**Prereq.:** BIOL 3730.

**BIOL 4834L Advanced Physiology: Integrative Mechanisms Laboratory 1 s.h.**

Experimental approach to the examination of advanced human physiology through a detailed study of selected body systems. Systems examined may include the cardiovascular, renal and respiratory systems, exchange dynamics among body fluid compartments, and acid-base balance. Three hours lab.

**Prereq. or concurrent** BIOL 4834.

**BIOL 4835 Advanced Physiology: Regulatory Mechanisms 3 s.h.**

Examination of advanced human physiology through a detailed study of selected body systems. Systems examined may include musculoskeletal, gastrointestinal, metabolic and thermoregulatory. Three hours lecture.

**Prereq.:** BIOL 3730.

**BIOL 4835L Advanced Physiology: Regulatory Mechanisms Laboratory 1 s.h.**

Experimental approach to the examination of advanced human physiology through a detailed study of selected body systems. Systems examined may include the musculoskeletal, gastrointestinal, metabolic and thermoregulatory. Three hours lab.

**Prereq. or concurrent** BIOL 4835.

**BIOL 4836 Cell Biology: Molecular Mechanisms 3 s.h.**

The relationship of molecular structure to cellular function. Concepts will be presented integrating the biochemical dynamics of bio-membrane systems including receptors, bioenergetics, and the physiochemical environment. Three hours of lecture.

**Prereq.:** BIOL 3711 or consent of instructor.

**BIOL 4836L Cell Biology: Molecular Mechanisms Laboratory 0 s.h.**

Cell Biology: Molecular Mechanisms Laboratory.

**BIOL 4837 Cell Biology: Protein Biology Laboratory 1 s.h.**

The relationship of nucleic acid structure and protein structure will be studied in hands on series of laboratory experiments. Concepts presented will integrate the use of modern molecular biology techniques with contemporary approaches to current problems in biology. Three hours of laboratory.

**Prereq.:** BIOL 3711 or consent of instructor.

**BIOL 4839 Selected Topics in Physiology 1 s.h.**

Advanced study of topics in physiology not covered in depth in other physiology courses. May be repeated twice up to 2 s.h.

**Prereq.:** BIOL 3730.

**BIOL 4841 Animal Parasitology 3 s.h.**

Biological implications of parasitism. Diagnosis, morphology, and life histories of the parasites of humans and domestic animals. One hour lecture, four hours lab.

**Prereq.:** BIOL 3702.

**BIOL 4841L Animal Parasitology Laboratory 0 s.h.**

Animal Parasitology Laboratory .

**BIOL 4848 Biology of Fungi 3 s.h.**

Examination of fungal and fungal-like organisms with emphasis placed upon their taxonomy, phylogenetic relationships, structure, function, physiology, genetics, and ecology. Exploration of their role in agriculture, medicine, and scientific research.

**Prereq.:** BIOL 2602 or graduate standing.

**BIOL 4849 Medical Mycology 3 s.h.**

Survey of infectious diseases caused by fungi including their etiology, epidemiology, histopathology, diagnosis, and treatment. Host-parasite interactions and the environmental and molecular factors that contribute to establishment of fungal disease in humans and animals.

**Prereq.:** BIOL 2602.

**BIOL 4850 Problems in Biology 1-3 s.h.**

Special biological problems for which materials and equipment are available and for which the student is qualified.

**Prereq.:** Senior standing or consent of the chairperson.

**BIOL 4861 Senior Biology Capstone Experience 2 s.h.**

A capstone experience for the major in Biological Sciences (B.A. or B.S. degree).

**Prereq.:** Senior status in Biological Sciences, completion of at least one 3700 and 4800 level laboratory course.

**BIOL 4866 Dendrology 4 s.h.**

Identification, ecology, and significance of local plants. Two hours lecture, four hours lab.

**Prereq.:** BIOL 3740 or BIOL 3762.

**BIOL 4866L Dendrology Laboratory 0 s.h.**

Dendrology Laboratory.

**BIOL 4867 Stem Cell Biology 3 s.h.**

This course deals with the study of stem cells and their role in biology. Developmental aspects of stem cells will be presented. The relevance of stem cells to medicine and applied biology will be discussed.

**Prereq.:** BIOL 3711 or BIOL 4890 or consent of instructor.

**BIOL 4871 Entomology 4 s.h.**

Introduction to the morphology, physiology, development, and control of insects. Survey of insect orders and families. Two hours lecture, four hours lab.

**Prereq.:** BIOL 3741.

**BIOL 4871L Entomology Laboratory 0 s.h.**

Entomology Laboratory.

**BIOL 4878 Conservation Biology 3 s.h.**

A socioeconomic, political and ecological approach to issues associated with the maintenance and value of biodiversity and ecosystem services; consequences of anthropogenic climate change, fragmentation, overharvesting, extinction, and invasion of non-native species; biofuels; ecological restoration, nature reserve design and sustainability. Three hours lecture.

**Prereq.:** BIOL 3759 or BIOL 3780 or permission of instructor.

**BIOL 4882 Biomathematics Research 1-2 s.h.**

Interdisciplinary and individualized study of a topic in biology and mathematics. Student project mentored jointly by faculty in biology and mathematics. May be repeated once. Grading is Traditional/PR. Listed also as MATH 4882.

**Prereq.:** MATH 3701/BIOL 3701, senior status and permission of the department chairperson.

**BIOL 4890 Molecular Genetics 3 s.h.**

Examination of DNA structure, DNA replication, transcription, translation, RNA processing, and gene control in both prokaryotes and eukaryotes.

**Prereq.:** BIOL 3711 or BIOL 3721.

**BIOL 4890L Molecular Genetics Laboratory 1 s.h.**

Introduction to basic molecular techniques such as transformation, use of restriction enzymes, agarose gel electrophoresis, and polymerase chain reaction (PCR). Three hours lab.

**Prereq.:** BIOL 4890 or concurrent.

**BIOL 4893 Biology of Proteins 2 s.h.**

This course engages the student in the world of proteins, from the basic structure and function of proteins in biological systems, to the applied sciences involved in the development of commercially valuable proteins. This course extends the students previous understanding and expertise in molecular biology to emphasize proteins.

**Prereq.:** BIOL 3711 or BIOL 4890 or consent of instructor.

**BIOL 4896 Introduction to Biomedical Research 2 s.h.**

The class will introduce students to processes and strategies at the core of modern biomedical research. Students will develop an understanding of experimental design, experimental implementation, data evaluation and communication.

**Prereq.:** BIOL 3730.

**BIOL 4897 Internship in Biomedical Research 3 s.h.**

This course designed for a student pursuing the Certificate in Biomedical Research. Students enrolled in this course will be assigned to a research project in collaboration with physicians from the Mercy Health system. This course will provide the student with a comprehensive clinical research experience.

**Prereq.:** Accepted into Certificate in Biomedical Research program; concurrent or previously taking BIOL 4896.

**BIOL 4898 Research in Physiology 3 s.h.**

A comprehensive laboratory experience under the supervision of a faculty mentor. Course may be repeated once for a total of 6 s.h.

**Prereq.:** BIOL 3730, CHEM 3720, and acceptance into the Certificate in Anatomy and Physiology program.

**BIOL 4899 Internships in the Biological Sciences 2 s.h.**

Internships integrate theory and practice through supervised learning experiences. Internships are available in any area of the biological/biomedical sciences, including field research and analytical, clinical, or research laboratories. Students submit a proposal of the internship, maintain a journal of experiences, and submit a final project paper.

**Prereq.:** Junior or senior standing in Biological Sciences and permission of the chairperson.

**BIOL 5806 Field Ecology 4 s.h.**

Field study involving quantitative methods for the collection, analysis, and interpretation of ecological data in populations and communities. Pre-field trip lectures, specified experiments, independent study, a written report, and an oral presentation of the independent study project. Required off-campus travel. Field conditions may be rigorous and/or primitive.

**Prereq.:** BIOL 3780.

**BIOL 5811 Ornithology 4 s.h.**

Structure, physiology, behavior, ecology, and evolution of birds. Natural history of common bird species and important bird groups, especially those in Ohio. Basic methods and skills for field study of birds. Three hours lecture, three hours lab.

**Prereq.:** BIOL 3741.

**BIOL 5811L Ornithology Laboratory 0 s.h.**

Ornithology Laboratory.

**BIOL 5813 Vertebrate Histology 4 s.h.**

The microscopic study of mammalian tissues and organs. Three hours lecture, two hours lab.

**Prereq.:** BIOL 3711 or BIOL 3730.

**BIOL 5813L Vertebrate Histology Laboratory 0 s.h.**

Vertebrate Histology Laboratory.

**BIOL 5823 Advanced Eukaryotic Genetics 3 s.h.**

Mechanisms and control of eukaryotic DNA replication, current advances in understanding the genetics basis of cancer and other genetic diseases, problems and benefits of the various eukaryotic genome projects (human and others), gene therapy and genetic engineering in animals and plants.

**Prereq.:** BIOL 3721 and BIOL 4890.



**BIOL 5824 Behavioral Neuroscience 4 s.h.**

Explores the biological basis of human experience and behavior. Topics include basic neuroanatomy and neuropharmacology, emotions, learning and memory, sleep and biological rhythms, reproductive behavior, and communication. Three hours lecture, three hours lab.

**Prereq.:** BIOL 3730.

**BIOL 5824L Behavioral Neuroscience Laboratory 0 s.h.**

Behavioral Neuroscience Laboratory.

**BIOL 5827 Gene Manipulation 2 s.h.**

Techniques of modern molecular biology including the use of restriction enzymes, plasmid and phage vectors, Southern blots and the polymerase chain reaction (PCR). Introduction and manipulation of foreign DNA in bacterial and eukaryotic systems. Six hours lab.

**Prereq.:** BIOL 4890.

**BIOL 5832 Principles of Neurobiology 4 s.h.**

Topics include cell and molecular biology of the neuron, properties of excitable membranes, functional neuroanatomy, integrated motor control, sensory signal transduction, developmental neurobiology, mechanisms of disease processes, and higher cortical function.

**Prereq.:** BIOL 3730.

**BIOL 5833 Mammalian Endocrinology 3 s.h.**

Detailed examination of the hormones of the hypothalamus, pituitary, thyroid, adrenal pancreas, gonads, and other organs with putative endocrine function. Focus on the physiological functions of hormones and their mechanisms of action with emphasis on the human.

**Prereq.:** BIOL 3730.

**BIOL 5840 Advanced Microbiology 3 s.h.**

Molecular mechanisms for virulence of pathogenic organisms.

**Prereq.:** BIOL 3702 or equivalent.

**BIOL 5844 Physiology of Reproduction 3 s.h.**

Current concepts of reproductive processes and their physiological control in mammalian systems.

**Prereq.:** BIOL 3730.

**BIOL 5853 Biometry 3 s.h.**

Application of fundamental theory and procedures to the statistical analysis of biological data.

**Prereq.:** 20 s.h. of Biological Sciences.

**BIOL 5861 Animal Behavior 3 s.h.**

Detailed examination of a variety of topics necessary for understanding animal behavior. Historical approaches to animal behavior, evolution and behavior genetics, physiology of behavior, behavioral ecology, and social organization and mating systems.

**Prereq.:** BIOL 3741 or permission of instructor.

**BIOL 5865L Functional Human Gross Anatomy Lab 0 s.h.**

Functional Human Gross Anatomy Lab.

**BIOL 5868 Gross Anatomy 1 4 s.h.**

Regional study of the human body with emphasis on functional and topographic anatomy and clinical correlations. Two hours lecture-demonstration, four hours lab.

**Prereq.:** Admission to the YSU Physical Therapy program or permission of instructor.

**BIOL 5868L Gross Anatomy 1 Laboratory 0 s.h.**

Gross Anatomy 1 Laboratory.

**BIOL 5869 Gross Anatomy 2 4 s.h.**

Regional study of the human body with emphasis on functional and topographic anatomy and clinical correlations. Two hours lecture-demonstration, four hours lab.

**Prereq.:** BIOL 5868.

**BIOL 5869L Gross Anatomy 2 Laboratory 0 s.h.**

Gross Anatomy 2 Laboratory.

**BIOL 5888 Environmental Biotechnology 4 s.h.**

Lectures will cover the use of microbes for solving environmental problems. In the laboratory, teams of students will design and implement experiments in bioremediation. This course is intended for students in biology, environmental studies, chemistry, and engineering. Two hours lecture and four hours lab.

**Prereq.:** CHEM 3719 or CEEN 3736.

**BIOL 5888L Environmental Biotechnology Laboratory 0 s.h.**

Environmental Biotechnology Laboratory.

## Bachelor of Arts in Biological Sciences

The Bachelor of Arts is recommended only for those students who plan careers in business or secondary education careers related to the Biological Sciences. A minimum of 32 S.H. in Biological Sciences is required for the BA degree.

All biological sciences majors must take the courses as listed for the BA degree in the curriculum sheet.

The BA degree in biological sciences requires a minimum of 32 semester hours from within the Department of Biological Sciences. (Courses at the 1000 level are not applicable to a Bachelor of Arts degree.)

All biological sciences majors must take the following courses for the BA degree:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Natural Sciences		6
Social Science		6
Social and Personal Awareness		6
General Education Elective		3
<b>Major Requirements</b>		
BIOL 2601	General Biology: Molecules and Cells <sup>1</sup>	4
BIOL 2602	General Biology: Organisms and Ecology <sup>1</sup>	4
<b>Core Courses</b>		
Select one course from two of the following groups:		7-9
Group A		
BIOL 3702	Microbiology	4
BIOL 3702L	Microbiology Laboratory	0
BIOL 3711	Cell Biology: Fine Structure	
Group B		
BIOL 3725	Mammalogy	3
BIOL 3730	Human Physiology	
Group C		
BIOL 3740	Plant Diversity	
BIOL 3741	Animal Diversity	
Select 13-15 semester hours of courses in the Department of Biological Sciences at the 3000-5000 level. At least two of these courses must have a laboratory component.		13-15
<b>Capstone Course</b>		
BIOL 4861	Senior Biology Capstone Experience	2
<b>Electives</b>		

Select 32 s.h. of Biological Science credit.	32
<b>Additional Course Work</b>	
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory 4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory 4
Elementary and Intermediate foreign language	4
Strongly recommended:	
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2

**Total Semester Hours** 120-124

<sup>1</sup> The general biology courses are prerequisites for genetics and all core and upper-division courses.

Students seeking admission to medically related professional schools should complete the BS program.

The mathematics, physics and chemistry courses may not be taken under the credit/no credit option. (For General University Requirements (p. 43), see the Academic Policies and Procedures section of the Undergraduate Catalog.)

**Recommended core curriculum meeting science requirements of medically related and other professional schools.**

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
BIOL 2601	General Biology: Molecules and Cells	4
CHEM 1515	General Chemistry 1	4
CHEM 1515R	Recitation for General Chemistry 1 (opt)	1
ENGL 1550	Writing 1 (electives may be substituted if excused based on results of Placement Test)	3
GER AL/SS/SPA		3
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
BIOL 2602	General Biology: Organisms and Ecology	4
CHEM 1516	General Chemistry 2	4
CHEM 1516R	Recitation for General Chemistry 2 (opt)	1
ENGL 1551	Writing 2 (electives may be substituted if excused based on results of Placement Test)	3
GER elective (COMM 1545 recommended)		3
<b>Semester Hours</b>		<b>15</b>

<b>Year 2</b>		
<b>Fall</b>		
Biology Core Course		
Select one of the following:		3-5
BIOL 3730	Human Physiology	
BIOL 3711	Cell Biology: Fine Structure	
BIOL 3740	Plant Diversity	
MATH 1570 or MATH 1571	Applied Calculus 1 or Calculus 1	4
GER Elective (AL)		3
General Electives		3

Select an additional 3 s.h.	3
<b>Semester Hours</b>	
<b>16-18</b>	

<b>Spring</b>		
Biology Core Course		
Select one of the following:		3-5
BIOL 3730	Human Physiology	
BIOL 3721	Genetics	
BIOL 3741	Animal Diversity	
Introductory Foreign Language		4
GER Elective (SI)		3
General Electives		6

**Semester Hours** 16-18

<b>Year 3</b>		
<b>Fall</b>		
BIOL 3700-5800 course w/ lab		4
Intermediate Foreign Language		4
GER electives (PS), (SI)		6
General Elective		3

**Semester Hours** 17

<b>Spring</b>		
BIOL 3700-5800 course w/ lab		4
BIOL 3700-5800 course		3-4
GER electives (AL), (PS)		6
General Elective		3

**Semester Hours** 16-17

<b>Year 4</b>		
<b>Fall</b>		
BIOL 3700 course		3-4
General Electives		9

**Semester Hours** 12-13

<b>Spring</b>		
BIOL 3700-5800 course		4
BIOL 4861	Senior Biology Capstone Experience	2
General Electives		9

**Semester Hours** 15

**Total Semester Hours** 122-128

## Learning Outcomes

The department's learning outcomes for the BA in biology are as follows:

- Students will be fluent in the terminology of the biological sciences.
- Students will be competitive for entry into the workplace.
- Students will be familiar with the scientific process and the process of hypothesis testing.
- Students should be able to reason critically, both individually and in collaboration with other students.

## Bachelor of Science in Biological Sciences

(330) 941-3601

Room 4037

Ward Beecher Science Hall

The Bachelor of Science degree is recommended for those who wish to pursue careers in the biological sciences, medicine, dentistry, or other related biotech

fields. A minimum of 37 s.h. in Biological Sciences is required for the BS degree.

The BS degree in biological sciences requires a minimum of 37 semester hours from within the Department of Biological Sciences. (Courses at the 1000 level are not applicable to a Bachelor of Science degree.):

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Natural Sciences		6
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
<b>Required Biology Courses (37 s.h.)</b>		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory <sup>1</sup>	4
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory <sup>1</sup>	4
BIOL 2603	Integrated Biology for BS/MD (BIOL 2603 satisfies the 2601/2602 requirement)	
BIOL 3721	Genetics	3
BIOL 4861	Senior Biology Capstone Experience	2
<b>Core Courses</b>		
One course must be taken from two of the following groups (7-9 s.h.):		7-9
Group A		
BIOL 3711	Cell Biology: Fine Structure	
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	
Group B		
BIOL 3730 & 3730L	Human Physiology and Human Physiology Laboratory	
BIOL 3725	Mammalogy	
Group C		
BIOL 3740 & 3740L	Plant Diversity and Plant Diversity Laboratory	
BIOL 3759	Evolution	
<b>Electives in Biology</b>		
Select 15-17 semester hours of BIOL courses at the 3700-5000 level. At least two of these courses must have a laboratory component, with at least one at the 4800-5800 level.		15-17
<b>Required Support Courses</b>		
Mathematics - take one of the following courses (4 s.h.):		
MATH 1570	Applied Calculus 1	
MATH 1571	Calculus 1	
Statistics - take one of the following (3-4 s.h.):		
BIOL 5853	Biometry	3
STAT 3717	Statistical Methods	4
Physics - take one of the following sequences (9-10 s.h.):		
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1	5
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2	4

OR		
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
Chemistry (16 s.h.):		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
Enrollment in the recitation sections are recommended for PHYS 1501 and the above Chemistry courses.		
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
CHEM 1515	General Chemistry 1	4
ENGL 1550	Writing 1 (electives may be substituted if excused based on results of Placement Test)	3
GER AL/SS/SPA		3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 1516	General Chemistry 2	4
ENGL 1551	Writing 2 (electives may be substituted if excused based on results of Placement Test)	3
GER Elective (COMM 1545 recommended)		3
<b>Semester Hours</b>		<b>14</b>
<b>Year 2</b>		
<b>Fall</b>		
Biology Core Courses (choose 1 of 3) <sup>1</sup>		4-5
MATH 1570 or MATH 1571	Applied Calculus 1 or Calculus 1	4
BIOL 3721	Genetics (CT)	3
CHEM 3719	Organic Chemistry 1	4
<b>Semester Hours</b>		<b>15-16</b>
<b>Spring</b>		
Biology Core Course: choose 1 of 3 <sup>1</sup>		4-5
STAT 3717 or BIOL 5853	Statistical Methods or Biometry	4
CHEM 3720	Organic Chemistry 2	4
GER elective (SI)		3
<b>Semester Hours</b>		<b>15-16</b>
<b>Year 3</b>		
<b>Fall</b>		
BIOL 3700-5800 course		4
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1	5

GER electives (PS), (SI)	6
<b>Semester Hours</b>	<b>15</b>
<b>Spring</b>	
BIOL 3700-5800 course	4
PHYS 1502 Fundamentals of Physics 2 & 1502L and Fundamentals of Physics Laboratory 2	4
GER Electives (AL), (PS)	6
<b>Semester Hours</b>	<b>14</b>
<b>Year 4</b>	
<b>Fall</b>	
BIOL 3700 course	4
BIOL 5800 course	4
GER elective (AL)	3
General Electives	6
<b>Semester Hours</b>	<b>17</b>
<b>Spring</b>	
BIOL 3700-5800 course	4
BIOL 4861 Senior Biology Capstone Experience	2
General Electives	4-10
<b>Semester Hours</b>	<b>10-16</b>
<b>Total Semester Hours</b>	<b>114-122</b>

<sup>1</sup> Core courses: One course must be taken from two of the following groups:  
 Group A: BIOL 3711 Cell Biology: Fine Structure or BIOL 3702 Microbiology and BIOL 3702L Microbiology Laboratory  
 Group B: BIOL 3730 Human Physiology and BIOL 3730L Human Physiology Laboratory or BIOL 3725 Mammalogy Group C: BIOL 3740 Plant Diversity and BIOL 3740L Plant Diversity Laboratory or BIOL 3759 Evolution

## Learning Outcomes

The student learning outcomes for the major in biological sciences are as follows:

- Students will be prepared for entry into professional health or research related schools, post-graduate (MS, PhD) programs, or the work place.
- Students will master the subjects found on standardized tests (molecular biology, physiology, immunology) required for entrance into professional schools (MCAT, GRE, etc.).
- Students will demonstrate an understanding of fundamental biological principles and their application.
- Students should be able to reason critically, both individually and in collaboration with other students.

## Bachelor of Science in Biological Sciences BaccMed Track

The BS in Biological Sciences - BaccMed Track degree is competitive program recommended for those who wish to pursue careers in medicine.

## Learning Outcomes

The student learning outcomes for the major in Biological Sciences are as follows:

- Students will be prepared for entry into professional health or research related schools, post-graduate (MS) programs, or the workplace.
- Students will master the subjects found on standardized tests (molecular biology, physiology, immunology) required for entrance into professional schools (MCAT, GRE, etc.).

- Students will demonstrate an understanding of fundamental biological principles and their application.
- Students should be able to reason critically, both individually and in collaboration with other students.

The BS degree in Biological Sciences requires a minimum of 37 semester hours from within the Department of Biological Sciences. (Courses at the 1000-level are not applicable to a BS degree.) Required courses may not be taken as credit/no credit.

All Biological Science majors following the BaccMed track must satisfy the following requirements:

COURSE	TITLE	S.H.
General Education Requirements		
Core Competencies		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 1571	Calculus 1	
General Education Knowledge Domains		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model.		
Listed GER courses below are required for this major.		
Arts and Humanities		6
Natural Science (2 courses, one must include a lab)		7
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	
Social Science		6
SOC 1500	Introduction to Sociology	
PSYC 1560	General Psychology	
Social and Personal Awareness		6
PHLT 1531	Fundamentals of Public Health	
SOC 3745	Sociology of Health, Illness, and Healthcare	
General Education Elective / First-Year Experience		3
<b>Required BIOL Courses (17 s.h.):</b>		
BIOL 2603	Integrated Biology for BS/MD	4
BIOL 3711	Cell Biology: Fine Structure	3
BIOL 3721	Genetics	3
BIOL 3730	Human Physiology	4
BIOL 3730L	Human Physiology Laboratory	1
BIOL 4861	Senior Biology Capstone Experience	2
<b>Select a minimum of 20 s.h. of elective BIOL courses at the 3000-5000-level. A minimum of two or these courses must have a laboratory component, with at least one lab course at the 4000-5000-level (20 s.h.)</b>		
<b>Required Support Courses (54 s.h.):</b>		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM 3785	Biochemistry 1	3
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1

MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
STAT 3717	Statistical Methods	4
SOC 1500	Introduction to Sociology	3
SOC 3745	Sociology of Health, Illness, and Healthcare	3
PSYC 1560	General Psychology	3
PHLT 1531	Fundamentals of Public Health	3
PHLT 3709	Elements of Urban Environmental Health Practices	3
PHLT 3725	Topics in Public Health	3

## Minor in Biological Sciences

COURSE	TITLE	S.H.
<b>Required Courses</b>		
BIOL 2601	General Biology: Molecules and Cells	4
BIOL 2601L	General Biology: Molecules and Cells Laboratory	0
BIOL 2602	General Biology: Organisms and Ecology	4
BIOL 2602L	General Biology: Organisms and Ecology Laboratory	0
<b>Core Courses</b>		
Select one of the following:		3-5
BIOL 3711	Cell Biology: Fine Structure	
BIOL 3721	Genetics	
BIOL 3730 & 3730L	Human Physiology and Human Physiology Laboratory	
BIOL 3740 & 3740L	Plant Diversity and Plant Diversity Laboratory	
BIOL 3741 & 3741L	Animal Diversity and Animal Diversity Laboratory	
One 4800-5800 level course with lab		4-5
One 3700-5800 level course		3
<b>Total Semester Hours</b>		<b>18-21</b>

## Certificate in Biomedical Research

The certificate in Biomedical Research is designed to better prepare undergraduate students interested in pursuing advanced degrees in biomedical research (e.g., MS and PhD programs) as well as professional degrees in medicine, dentistry, or physical therapy. The certificate will ensure that students not only focus their education toward disciplines related to biomedicine, but also gain comprehensive clinical research experience. This program will bring together Youngstown State University undergraduates with Mercy Health resident physicians to work on a collaborative, clinical research project.

### Admission Requirements:

- Minimum grade point average of 3.4 (on a 4.0 scale) in the prerequisite courses
- Submission of the CBR application and two CBR recommendation forms
- Interview with the CBR Program Coordinator

### Program Requirements:

- Must complete 26-29 semester hours, including all required courses and 9-12 hours of electives.
- Must maintain a grade point average of 3.0 or better in the required and elective courses.

COURSE	TITLE	S.H.
<b>CBR Prerequisite Courses</b>		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4

BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
BIOL 3730	Human Physiology	4
BIOL 3730L	Human Physiology Laboratory	1
<b>CBR Required Courses</b>		
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	4
BIOL 4896	Introduction to Biomedical Research	2
BIOL 5853	Biometry <sup>2</sup>	4

or STAT 3717	Statistical Methods	
BIOL 4839	Selected Topics in Physiology	1
BIOL 4897 (must be taken twice 3+3 s.h.) <sup>1</sup>		6
<b>Select 9-12 s.h. of CBR Elective Courses from the following:</b>		
BIOL 3703	Clinical Immunology	3
BIOL 3725	Mammalogy	3
BIOL 4809	The Human Microbiome	3
BIOL 4822	Principles of Pharmacology	3
BIOL 4823	Cancer Biology	2
BIOL 4829	Microbial Physiology	3
BIOL 4830 & 4830L	Functional Neuroanatomy and Functional Neuroanatomy Laboratory	4
BIOL 4834	Advanced Physiology: Integrative Mechanisms	3
BIOL 4834L	Advanced Physiology: Integrative Mechanisms Laboratory	1
BIOL 4835	Advanced Physiology: Regulatory Mechanisms	3
BIOL 4835L	Advanced Physiology: Regulatory Mechanisms Laboratory	1
BIOL 5813 & 5813L	Vertebrate Histology and Vertebrate Histology Laboratory	4
BIOL 5824 & 5824L	Behavioral Neuroscience and Behavioral Neuroscience Laboratory	4
BIOL 5832	Principles of Neurobiology	4
BIOL 5853	Biometry <sup>2</sup>	3
BIOL 5868 & 5868L	Gross Anatomy 1 and Gross Anatomy 1 Laboratory	4
BIOL 5869 & 5869L	Gross Anatomy 2 and Gross Anatomy 2 Laboratory	4

<sup>1</sup> Students must enroll for BIOL 4897 Internship in Biomedical Research for two consecutive semesters.

<sup>2</sup> Students may take BIOL 5853 and STAT 3717. In this case, BIOL 5853 will serve as an elective course in fulfillment of the CBR.

## Learning Outcomes

- Demonstrate both a theoretical and practical application of natural sciences to clinical medicine
- Demonstrate mastery of the scientific method and technical skills specific to conducting biomedical research investigations
- Demonstrate mastery of locating, critically evaluating and utilizing biomedical primary literature
- Demonstrate mastery of oral and written scientific communication

## Certificate in Anatomy and Physiology

The certificate in Anatomy and Physiology is an option within the Bachelor of Science degree in Biological Sciences. The program is designed for undergraduate and post-baccalaureate students that want to better prepare for careers in: advanced degrees in anatomy and physiology, professional degrees in medicine, dentistry or veterinary medicine or employment in industry.

The Department of Biological Sciences will grant admission to the Certificate in Anatomy and Physiology program. Due to the research-intensive aspects of this program, a limited number of competitive candidates will be selected for participation in the certificate. Minimum requirements for admission are:

- Students must have a minimum grade point average of 2.7 (on a 4.0 scale) in the prerequisite courses.
- Submission of two academic letters of recommendation.
- Interview with the members of the division of Anatomy and Physiology.

To receive the Certificate in Anatomy and Physiology, students must complete 26-29 semester hours and maintain a grade point average of 3.0 or better in their required and elective courses in the certificate program. A total of 17 semester hours will be from required courses, including advanced courses in anatomy and physiology that have both a lecture and laboratory component. The remaining 9-12 semester hours will be selected by each student from a list of elective courses, which allows a student to tailor a portion of their course work to individual interest within the areas of anatomy and physiology. Student must also complete the required prerequisites to the upper-division courses, and cannot take a course on a credit/no credit basis.

COURSE	TITLE	S.H.
BIOL 5813 & 5813L	Vertebrate Histology and Vertebrate Histology Laboratory	4
BIOL 4839	Selected Topics in Physiology	1
BIOL 4898	Research in Physiology <sup>1</sup>	3
BIOL 4834 & 4834L	Advanced Physiology: Integrative Mechanisms and Advanced Physiology: Integrative Mechanisms Laboratory	4
CHEM 3785	Biochemistry 1	3
<b>Elective Certificate Courses</b>		
Pick three courses from the following:		
BIOL 3775 & 3775L	Comparative Vertebrate Anatomy and Comparative Vertebrate Anatomy Laboratory	3
BIOL 4822	Principles of Pharmacology	3
BIOL 4830 & 4830L	Functional Neuroanatomy and Functional Neuroanatomy Laboratory	4
BIOL 5832	Principles of Neurobiology	4
BIOL 5833	Mammalian Endocrinology	3
BIOL 4835 & 4835L	Advanced Physiology: Regulatory Mechanisms and Advanced Physiology: Regulatory Mechanisms Laboratory	4
BIOL 4836 & 4836L	Cell Biology: Molecular Mechanisms and Cell Biology: Molecular Mechanisms Laboratory	3
BIOL 5844	Physiology of Reproduction	3
BIOL 5868 & 5868L	Gross Anatomy 1 and Gross Anatomy 1 Laboratory	4
BIOL 5869 & 5869L	Gross Anatomy 2 and Gross Anatomy 2 Laboratory	4

<sup>1</sup> Students must enroll for BIOL 4898 for two consecutive semesters.

## Certificate in Molecular Biology and Biotechnology

The Certificate in Molecular Biology and Biotechnology is designed to better prepare undergraduate and post-baccalaureate students interested in pursuing the following areas:

1. Advanced degrees molecular biology or applied biosciences and bioengineering.
2. Professional degrees in biomedical sciences, biochemistry and gene technology programs.
3. Employment in industry with a focus on biotechnology.

Many of the advances in Biological Sciences in the second half of the 20<sup>th</sup> century and the first decades of the 21<sup>st</sup> century have occurred in the fields of molecular biology and genetics. We have entered an era where genomic sequencing and the examination of entire biological systems is commonplace. In this era of genomic sequencing and genetic engineering of a whole host of organisms a knowledge of Molecular biology is essential. The Bachelor of Science in Molecular Biology and Biotechnology is designed to prepare students for careers in fields where an in depth knowledge of molecular biology and biotechnology are needed.

The current Bachelor of Science in Biological Sciences is very broad. No clear track to knowledge and skills in Molecular Biology and Biotechnology is discernable. In this program students will be prepared for research or technically intensive graduate programs and career positions requiring a knowledge set and expertise in molecular biology/ biotechnology. Also students from this program that choose a public policy career will be better informed of the issues facing society in regards to molecular biology than their peers.

This program is aimed to be an interface between fundamental basic sciences and applied sciences. The degree will require almost no additional resources from the University. The Department of Biological Sciences and the STEM college already have the faculty, research base, and courses to implement this program. The Bachelors degree in Molecular Biology and Biotechnology will simply clarify for students a pathway to acquiring a specific set of skills and knowledge that are already available at Youngstown State University.

The B.S. Certificate in Molecular Biology and Biotechnology is designed to give the student a competitive edge in obtaining career opportunities in pharmaceuticals, biomedical, biotechnology, recombinant DNA technology based fields as well a broader opportunities. This is a research and techniques focused curriculum that emphasizes the molecular biology sciences.

**Criteria for admission to the certificate program:** Due to the research-intensive aspects of this program, a limited number of competitive candidates will be selected for participation in the Certificate. Minimum requirements for admission to the Certificate in Molecular Biology and Biotechnology are; 1) completion of the prerequisite course in the certificate curriculum and 2) a **3.0 GPA**. Admission to the program is determined by the program coordinator (Departmental Chair) after review of formal application.

To receive the certificate in Molecular Biology and Biotechnology, students must complete 35-38 semester hours and maintain a grade point average of 3.0 or better in their required and elective courses in the certificate program.

Prerequisites for admission to the Molecular Biology and Biotechnology certificate.

These prerequisite courses are designed to select for the students that will be successful in the molecular biology and biotechnology fields. They all apply to the BS or BA degree program.

COURSE	TITLE	S.H.	BIOL 5840	Advanced Microbiology	3
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4	<b>Subtotal of elective BIOL courses: 6-8 s.h.</b>		
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4			
BIOL 3721	Genetics	3			
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	4			
OR					
BIOL 3711	Cell Biology: Fine Structure	3			
<b>Total of Prerequisites BIOL courses: 14-15 s.h.</b>					

## Required Certificate Courses

COURSE	TITLE	S.H.
BIOL 4890	Molecular Genetics	3
BIOL 4800 & 4800L	Bioinformatics and Bioinformatics Laboratory	4

**BIOL 4850 A-Z Problems Course. Pick one course number specific to the topic/instructor**

1 s.h. then 2 s.h. with same average 16 hours per semester. instructor

BIOL 5827	Gene Manipulation	2
CHEM 3785 or BIOL 4829	Biochemistry 1 Microbial Physiology	3
<b>Subtotal of required BIOL courses: 15 s.h.</b>		

Biochemistry 1 can replace the chemistry recitation sections in satisfying the Chemistry minor. These courses are designed to give the student a firm foundation for molecular biology and the applied sciences in molecular biology.

Elective certificate BIOL courses. Pick at least two lecture courses and one lab course from the following (6-8 s.h.)

COURSE	TITLE	S.H.
BIOL 3759	Evolution	3
BIOL 3703	Clinical Immunology	3
BIOL 3703L	Clinical Immunology Laboratory	1
BIOL 4890L	Molecular Genetics Laboratory	1
BIOL 4837	Cell Biology: Protein Biology Laboratory	1
BIOL 4836	Cell Biology: Molecular Mechanisms	3
BIOL 4801 & 4801L	Environmental Microbiology and Environmental Microbiology Laboratory	4
BIOL 3730	Human Physiology	4 or 3 or 3
or BIOL 3745 or BIOL 4829	Plant Physiology Microbial Physiology	
BIOL 4893	Biology of Proteins	2
BIOL 4822	Principles of Pharmacology	3
BIOL 4823	Cancer Biology	2
BIOL 4848	Biology of Fungi	3
BIOL 5823	Advanced Eukaryotic Genetics	3

## Learning Outcomes

- The student will learn research approaches to modern questions in molecular biology by experiencing a research intensive environment.
- The student will learn and master scientific approaches and perspective of problems involving the molecular biology of living organisms. With his molecular perspective and context, will develop in the student a high level of problem solving ability.
- The student will become skilled in biotechnology techniques and methods.

## Department of Chemistry

(330) 941-3663

The Bachelor of Science degree is recommended for those students who plan to make a career in chemistry. A recommended program that meets the standards of the American Chemical Society is provided below. The Bachelor of Arts degree is recommended for those who plan to go into a medical, pre-pharmacy, or dental field and for those who plan to enter business or secondary education careers related to chemistry. The required courses for a BS degree with a major in chemistry are listed in the BS curriculum. The courses required for a BA degree are those listed in the BA curriculum below. Chemistry majors may not count CHEM 1500 Chemistry in Modern Living toward the major. These degrees may be earned in eight semesters if students with same average 16 hours per semester.

Students in pre-professional programs such as pre-optometry may obtain appropriate curricula and advisement in the Department of Chemistry.

The segments of chemistry courses extending through two semesters must be taken in sequence unless otherwise indicated.

Eye protection and lab coats must be worn in chemistry laboratories at all times.

Each student majoring in chemistry will be assigned a faculty advisor by the department. The advisor will discuss the overall curriculum necessary for a degree in chemistry and will assist the student in the preparation of a suitable course sequence and choice of a minor or minors.

All chemistry majors are urged to consult their advisors regularly to avoid curricular problems.

In both of the following curricula, the electives must satisfy the general requirements for the degree sought (see Degree Requirements). Foreign Language is required through 2600 level of all BA degrees.

## Combined BS/MS Program In Chemistry

This is a five-year program. Prospective students seeking admission to the program may submit an application to the Department of Chemistry during their senior year in high school. Students in the program start graduate studies after three years. They will normally receive the BS degree in chemistry after three years and the MS degree after five years.

### Chair

**Timothy R. Wagner**, Ph.D., Professor, Chair

### Professor

**Christopher Arntsen**, Ph.D., Assistant Professor

**Ganesaratnam K. Balendiran**, Ph.D., Professor

**Larry S. Curtin**, Ph.D., Associate Professor

**Douglas T. Genna**, Ph.D., Assistant Professor

**Allen D. Hunter**, Ph.D., Professor

**John A. Jackson**, Ph.D., Associate Professor

**Brian D. Leskiw**, Ph.D., Professor

**Clovis Linkous**, Ph.D., Professor

**Sherri R. Lovelace-Cameron**, Ph.D., Professor

**Peter Norris**, Ph.D., Professor

**Michael A. Serra**, Ph.D., Associate Professor

**Josef B. Simeonsson**, Ph.D., Professor

**Wim F.A. Steelant**, Ph.D., Professor

**Nina V. Stourman**, Ph.D., Associate Professor

## Majors

- BS in Chemistry (p. 474)
- BA in Chemistry (p. 473)
- BS in Biochemistry (p. 476)
- BS in Biochemistry, BaccMed Track (p. 477)

## Minors

- Chemistry Minor (p. 479)

### **CHEM 1500 Chemistry in Modern Living 3 s.h.**

Introduction to basic chemical concepts, the scientific method, and the impact of chemistry on human life and society. Examples may include water treatment, air quality, plastics, drugs, cosmetics, energy resources, food, and the chemical basis of life. Not intended for Chemistry majors.

**Gen Ed:** Natural Science.

### **CHEM 1500L Chemistry in Modern Living Laboratory 1 s.h.**

Introduction to basic laboratory techniques designed to supplement CHEM 1500. Three hours per week.

**Concurrent with:** CHEM 1500.

### **CHEM 1501 An Introduction to Chemistry 3 s.h.**

Metric units, dimensional analysis, chemical nomenclature, the mole concept, chemical stoichiometry. Emphasis on problem solving and the mathematics required for success in the study of chemistry. For students without high school chemistry and others needing preparation for CHEM 1505 or CHEM 1515. Three hours lecture, no laboratory.

**Prereq.:** MATH 1505 or MATH 1507 or one unit each of high school algebra and geometry.

### **CHEM 1505 Allied Health Chemistry 1 3 s.h.**

Introduction to the principles of chemistry including atomic structure, bonding, nomenclature, chemical calculations, chemical reactions, gas laws, solutions, acids and bases, and equilibrium. Intended for majors in allied health and other applied sciences. Two hours lecture, three hours lab-discussion.

**Prereq.:** CHEM 1501 or equivalent, MATH 1505 or MATH 1507 or equivalent.

**Concurrent** CHEM 1505L.

**Gen Ed:** Natural Science.

### **CHEM 1505L Allied Health Chemistry 1 Laboratory 0 s.h.**

Allied Health Chemistry 1 Laboratory.

### **CHEM 1505R Recitation for Allied Health Chemistry 1 1 s.h.**

Discussion and problem solving exercises to complement and enhance study in CHEM 1505.

**Concurrent with:** CHEM 1505.

### **CHEM 1506 Allied Health Chemistry 2 3 s.h.**

Fundamentals of organic and biological chemistry including applications to the human organism. Two hours lecture, three hours lab-discussion.

**Prereq.:** CHEM 1505.

**Concurrent:** CHEM 1506L.

**Gen Ed:** Natural Science.

### **CHEM 1506L Allied Health Chemistry 2 Laboratory 0 s.h.**

Allied Health Chemistry 2 Laboratory.

### **CHEM 1506R Recitation for Allied Health Chemistry 2 1 s.h.**

Discussion and problem solving exercises to complement and enhance study in CHEM 1506.

**Concurrent with:** CHEM 1506.

### **CHEM 1510 Chem for Allied Health Science 4 s.h.**

An overview of general, organic, and biochemistry. General chemistry introduces basic principles of chemistry. Organic chemistry examines the physical and chemical properties of molecules based on their functional groups. Biochemistry applied these chemistry concepts to the living organism. Intended for majors in allied health and other applied sciences. Three hours lecture, three hours laboratory.

**Prereq.:** grade of "C" or better in CHEM 1501 or equivalent and MATH 1505 or MATH 1507 or level 35 on the MPT or 22 or higher on the math section of the ACT.

**Concurrent:** CHEM 1510L.

### **CHEM 1510L Chemistry for the Allied Health Sciences Laboratory 0 s.h.**

Laboratory for the allied health chemistry course.

**Concurrent:** CHEM 1510.

### **CHEM 1510R Chemistry for the Allied Health Sciences Recitation 1 s.h.**

Discussion and problem solving exercises to complement and enhance study in CHEM 1510.

**Concurrent:** CHEM 1510.

### **CHEM 1515 General Chemistry 1 4 s.h.**

An introduction to the fundamental principles of chemistry, including measurement and calculation; chemical stoichiometry; the properties of gases; atomic and molecular structure; bonding; thermochemistry; and periodic properties. Intended for majors in the natural sciences and engineering. Three hours lecture, three hours lab-discussion.

**Prereq.:** CHEM 1501 or equivalent; MATH 1513 or equivalent.

**Concurrent:** CHEM 1515L; CHEM 1515R if major or repeating CHEM 1515.

**Gen Ed:** Natural Science.

### **CHEM 1515L General Chemistry 1 Laboratory 0 s.h.**

General Chemistry 1 Laboratory.

### **CHEM 1515R Recitation for General Chemistry 1 1 s.h.**

Discussion and problem solving based on current material in CHEM 1515. Required for chemistry majors or for those repeating CHEM 1515.

**Concurrent with:** CHEM 1515.

### **CHEM 1516 General Chemistry 2 4 s.h.**

A continuation of the study of the principles of chemistry, including solution properties; acids and bases; chemical equilibrium; thermodynamics; reaction kinetics; and electrochemistry. Intended for majors in the natural sciences and engineering. Three hours lecture, three hours lab-discussion.

**Prereq.:** "C" or better in CHEM 1515; **Concurrent:** CHEM 1516L; CHEM 1516R if major or repeating CHEM 1516.

**Gen Ed:** Natural Science.

### **CHEM 1516L General Chemistry 2 Laboratory 0 s.h.**

General Chemistry 2 Laboratory.

### **CHEM 1516R Recitation for General Chemistry 2 1 s.h.**

Discussion and problem solving based on current material in CHEM 1516. Required for chemistry majors or for those repeating CHEM 1516.

**Concurrent with:** CHEM 1516.

### **CHEM 2602 African and African-American Contributions to Science 3 s.h.**

Introduction to basic science concepts, the scientific method, and the impact of chemistry as a central science on society. Examples include works of African-American scientists.



**CHEM 2604 Quantitative Analysis 5 s.h.**

Chemical equilibrium, stoichiometry, theory of errors, and volumetric and gravimetric procedures as applied to quantitative determinations. Introduction to electroanalytical, chromatographic and spectrophotometric methods. Emphasis on development of technique. Three hours lecture, six hours lab.

**Prereq.:** CHEM 1516.

**CHEM 2604L Quantitative Analysis Laboratory 0 s.h.**

Quantitative Analysis Laboratory.

**CHEM 2650 Introduction to Undergraduate Research 1-2 s.h.**

Introduction to the methods of chemical research under the direction of a faculty member. May include literature search and analysis, instructional laboratory development, and/or original basic or applied research. May be repeated to a maximum of 4 s.h.

**Prereq. or concurrent:** CHEM 1516 and approval of department chairperson.

**CHEM 3719 Organic Chemistry 1 4 s.h.**

Organic compounds, reactions and theories. Typical preparations and procedures of analysis. Three hours lecture, three hours lab-discussion.

**Prereq.:** "C" or better in CHEM 1516.

**CHEM 3719L Organic Chemistry 1 Laboratory 0 s.h.**

Organic Chemistry 1 Laboratory.

**CHEM 3719R Organic Chemistry Recitation 1 1 s.h.**

An introduction to the preparation and analysis of organic compounds. Discussion of CHEM 3719 material and approaches to problem solving. Required for chemistry majors.

**Concurrent with:** CHEM 3719.

**CHEM 3720 Organic Chemistry 2 4 s.h.**

Organic compounds, reactions and theories. Typical preparations and procedures of analysis. Three hours lecture, three hours lab-discussion.

**Prereq.:** "C" or better in CHEM 3719.

**CHEM 3720L Organic Chemistry 2 Laboratory 0 s.h.**

Organic Chemistry 2 Laboratory.

**CHEM 3720R Organic Chemistry Recitation 2 1 s.h.**

An introduction to the preparation and analysis of organic compounds. Discussion of CHEM 3720 material and approaches to problem solving. Required for chemistry majors.

**Concurrent with:** CHEM 3720.

**CHEM 3729 Inorganic Chemistry 3 s.h.**

Fundamental principles underlying the structure, bonding, and properties of the elements and molecular, solid state, and coordination compounds.

**Prereq. or concurrent:** CHEM 3739.

**CHEM 3734 Physical Chemistry 1 for Chemical Engineers 3 s.h.**

Principles and applications of thermodynamics and kinetics to chemical systems. Three hours lecture.

**Prereq.:** "C" or better in CHEM 3720; PHYS 2611 and PHYS 2611L; MATH 1572.

**CHEM 3735 Physical Chemistry 2 for Chemical Engineers 3 s.h.**

Principles and applications of quantum mechanic and statistical thermodynamics to chemical systems.

**Prereq.:** CHEM 3739 or CHEM 3734.

**CHEM 3739 Physical Chemistry 1 4 s.h.**

Principles and applications of thermodynamics and kinetics to chemical systems. Three hours lecture, three hours lab-discussion.

**Prereq.:** "C" or better in CHEM 3720, PHYS 2611, PHYS 2611L, MATH 1572.

**CHEM 3739L Physical Chemistry 1 Laboratory 0 s.h.**

Physical Chemistry 1 Laboratory.

**CHEM 3740 Physical Chemistry 2 4 s.h.**

Principles and applications of quantum mechanic and statistical thermodynamics to chemical systems. Three hours lecture, three hours lab-discussion.

**Prereq.:** "C" or better in CHEM 3739; MATH 2673.

**CHEM 3740L Physical Chemistry 2 Laboratory 0 s.h.**

Physical Chemistry 2 Laboratory.

**CHEM 3764 Chemical Toxicology 3 s.h.**

Introduction to the clinical, forensic, industrial, and environmental aspects of chemical toxicology. Therapeutic and toxic limits of drugs. Actions, controls and treatment of poisons and environmental agents.

**Prereq.:** CHEM 3720.

**CHEM 3785 Biochemistry 1 3 s.h.**

Structure and properties of biomolecules, including proteins, lipids, carbohydrates and nucleic acids. Introduction to glycolysis metabolic pathway.

**Prereq.:** CHEM 3720.

**CHEM 3785L Biochemistry Laboratory 1 s.h.**

Analysis and separation techniques of biochemistry. Three hours lab-discussion.

**Prereq. or concurrent:** CHEM 3785.

**CHEM 3786 Biochemistry 2 3 s.h.**

Intermediary metabolism and biochemical information pathways.

**Prereq.:** CHEM 3785.

**CHEM 3790 Undergraduate Seminar 1 s.h.**

Students participate in departmental seminars and present a seminar to the class. May be repeated once.

**Prereq. or concurrent:** CHEM 2604 and CHEM 3720.

**CHEM 4850 Chemistry Research 1 s.h.**

Research planning, design, and execution including literature survey techniques, proposal writing, and critical scientific analysis. The student gives an oral presentation of a research proposal for CHEM 4850L, or on another topic as approved by the instructor.

**Prereq.:** CHEM 2604 or CHEM 3719 and approval of department chairperson.

**Gen Ed:** Capstone.

**CHEM 4850L Chemistry Research Laboratory 2-3 s.h.**

Research participation under the direction of a faculty member. The student prepares an acceptable written report on the completed project. May be repeated to a maximum of 5 s.h.

**Prereq. or concurrent :** CHEM 4850 and approval of department chairperson.

**Gen Ed:** Capstone.

**CHEM 4860 Regulatory Aspects of Industrial Chemistry 1 s.h.**

Roles and responsibilities of industrial chemists. Industrial hygiene and safety. Industrial chemical processes, their waste products, their environmental effects, and the treatment of pollutants. Governmental regulations relating to waste disposal, product safety, occupational safety, resource conservation, environmental protection, and problems of awareness and compliance.

**Prereq.:** CHEM 3720.

**CHEM 4891 Special Topics 1-3 s.h.**

Topics selected by the faculty from fields of current research interest or of special emphasis. May be repeated with different topics.

**CHEM 5804 Chemical Instrumentation 4 s.h.**

The theoretical foundations of instrumental procedures and the use of instruments in analytical work. Two hours lecture, six hours lab.

**Prereq.:** CHEM 3739.

**CHEM 5804L Chemical Instrumentation Laboratory 0 s.h.**

Chemical Instrumentation Laboratory.

**CHEM 5821 Intermediate Organic Chemistry 3 s.h.**

An intermediate treatment of organic chemistry building on the principles introduced at the sophomore level. Emphasis on curved arrow notation in mechanism and the planning of organic syntheses. Structural analysis of organic compounds using NMR, IR and MS and the application of structural knowledge to questions of mechanism.

**Prereq.:** CHEM 3720.

**CHEM 5822 Advanced Organic Laboratory 4 s.h.**

An advanced approach to the applications of organic chemistry in the laboratory. Synthesis and purification of organic molecules using modern techniques, structure elucidation using spectroscopic techniques. Lecture discussion includes use of instrumentation, planning of practical syntheses, use of the primary chemical literature and safety in the laboratory. Two hours lecture, six hours lab.

**Prereq.:** CHEM 3720.

**CHEM 5822L Advanced Organic Laboratory 0 s.h.**

Advanced Organic Laboratory.

**CHEM 5830 Intermediate Inorganic Chemistry 2 s.h.**

Reactions and descriptive chemistry of transition metal, organometallic, and main-group compounds.

**Prereq.:** CHEM 3729, CHEM 3740 (may be concurrent).

**CHEM 5831 Inorganic Chemistry Laboratory 2 s.h.**

Preparation of typical inorganic compounds and their characterization. Six hours lab-discussion.

**Prereq. or concurrent:** CHEM 3729 and CHEM 3739.

**CHEM 5832 Solid State Structural Methods 3 s.h.**

The determination of structures of biological, organic, and inorganic materials in the solid state. Introduction to the crystalline state, defects, diffraction of waves, powder and single crystal diffraction methods of neutron and x-ray analysis, electron microscopy, and solid state NMR. Two hours lecture, three hours lab.

**Prereq.:** CHEM 3729.

**CHEM 5832L Solid State Structural Methods Laboratory 0 s.h.**

Solid State Structural Methods Laboratory.

**CHEM 5836 Quantum Chemistry 3 s.h.**

Basic principles of quantum chemistry, with applications to problems in molecular structure, spectroscopy and thermodynamics.

**Prereq.:** CHEM 3740.

**CHEM 5861 Polymer Science 1: Polymer Chemistry and Plastics 3 s.h.**

Preparation, characterization, structure-property relationships, morphology, and uses of the major commercial polymers. Two hours lecture, three hours lab.

**Prereq.:** CHEM 3739.

**CHEM 5861L Polymer Science 1: Polymer Chemistry and Plastics Laboratory 0 s.h.**

Polymer Science 1: Polymer Chemistry and Plastics Laboratory.

**CHEM 5862 Polymer Science 2: Polymer Rheology, Processing, and Composites 3 s.h.**

Polymer rheology, processing methods, and materials characterization. The effects of additives and the major classes of thermoplastic, thermoset, elastomeric, and composite materials. Two hours lecture, three hours lab.

**Prereq.:** CHEM 5861 or consent of the chairperson.

**CHEM 5862L Polymer Science 2: Polymer Rheology, Processing, and Composites Laboratory 0 s.h.**

Polymer Science 2: Polymer Rheology, Processing, and Composites Laboratory.

**CHEM 5876 Enzyme Analysis 2 s.h.**

Advanced biochemistry laboratory focusing on the methods of enzyme purification and characterization. One hour lecture, two hours lab.

**Prereq.:** CHEM 3785 or equivalent and CHEM 3785L or equivalent.

Mathematics requirement included in major.

**General Education Knowledge Domains**

Some courses are categorized in more than one knowledge domain. Courses can only be used once within the GE model.

Arts and Humanities	6
Natural Sciences (2 courses, one must include a lab) - NS requirement included in the major.	
Social Sciences	6
Social and Personal Awareness	6
Foreign Language	8
Foreign Language 1550	
Foreign Language 2600	

**The following CHEM core courses are required (29 s.h.):**

Grade of "C" or better is required. Courses cannot be taken "CR/NC"

CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1515R	Recitation for General Chemistry 1	1
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 1516R	Recitation for General Chemistry 2	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM 3720R	Organic Chemistry Recitation 2	1
CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4

**The following capstone is required (1 s.h.):**

CHEM 4850	Chemistry Research	1
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**The following non-CHEM courses are required (18 s.h.):**

MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5

**Electives:**

Select 9 s.h. of upper-level CHEM electives (3000 or higher) from the list below:

CHEM 3729	Inorganic Chemistry	
CHEM 3740 & 3740L	Physical Chemistry 2 and Physical Chemistry 2 Laboratory	
CHEM 3764	Chemical Toxicology	
CHEM 3785	Biochemistry 1	
CHEM 3785L	Biochemistry Laboratory	
CHEM 3786	Biochemistry 2	
CHEM 3790	Undergraduate Seminar	
CHEM 4850L	Chemistry Research Laboratory	
CHEM 4860	Regulatory Aspects of Industrial Chemistry	
CHEM 4891	Special Topics	
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory	
CHEM 5821	Intermediate Organic Chemistry	
CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory	
CHEM 5830	Intermediate Inorganic Chemistry	

## Bachelor of Arts in Chemistry

COURSE	TITLE	S.H.
General Education Requirements		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
STEM 1520	STEM First Year Orientation	2

CHEM 5831	Inorganic Chemistry Laboratory	
CHEM 5832 & 5832L	Solid State Structural Methods and Solid State Structural Methods Laboratory	
CHEM 5836	Quantum Chemistry	
CHEM 5861 & 5861L	Polymer Science 1: Polymer Chemistry and Plastics and Polymer Science 1: Polymer Chemistry and Plastics Laboratory	
CHEM 5862 & 5862L	Polymer Science 2: Polymer Rheology, Processing, and Composites and Polymer Science 2: Polymer Rheology, Processing, and Composites Laboratory	
CHEM 5876	Enzyme Analysis	
26 s.h. of additional electives required, 24 s.h. of which must be upper level. These electives should include courses needed to fulfill requirements of the minor.		26

**Total Semester Hours** 120

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
CHEM 1515 & 1515L & 1515R	General Chemistry 1 and General Chemistry 1 Laboratory and Recitation for General Chemistry 1	5
MATH 1571	Calculus 1	4
ENGL 1550	Writing 1	3
STEM 1520	STEM First Year Orientation	2
<b>Semester Hours</b>		<b>14</b>

<b>Spring</b>		
CHEM 1516 & 1516L & 1516R	General Chemistry 2 and General Chemistry 2 Laboratory and Recitation for General Chemistry 2	5
MATH 1572	Calculus 2	4
ENGL 1551	Writing 2	3
GER		3
<b>Semester Hours</b>		<b>15</b>

<b>Year 2</b>		
<b>Fall</b>		
CHEM 3719 & 3719L & 3719R	Organic Chemistry 1 and Organic Chemistry 1 Laboratory and Organic Chemistry Recitation 1	5
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
CHEM 3720 & 3720L & 3720R	Organic Chemistry 2 and Organic Chemistry 2 Laboratory and Organic Chemistry Recitation 2	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
GER		6
<b>Semester Hours</b>		<b>16</b>

<b>Year 3</b>		
<b>Fall</b>		
CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4
FNLG 1550	Elementary Foreign Language	4
Electives		5

GER		3
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
FNLG 2600	Intermediate Foreign Language	4
Upper-Level Chemistry Elective		3
Upper-Level Electives		5
GER		3

**Semester Hours** 15

<b>Year 4</b>		
<b>Fall</b>		
CHEM 4850	Chemistry Research	1
CMST 1545	Communication Foundations	3
Upper-Level Chemistry Elective		3
Upper Level GER Elective		3
Upper-Level Electives		5

**Semester Hours** 15

<b>Spring</b>		
Upper-Level Chemistry Elective		3
Upper-Level Electives		11

**Semester Hours** 14

**Total Semester Hours** 120

Electives must include courses to fulfill the students chosen minor. Typically for Chemistry majors, the minor will be in Mathematics, Physics or Biology.

## Learning Outcomes

- Undergraduate students will demonstrate an understanding of the basic principles of the chemical disciplines included in their curriculum.
- Undergraduate students will demonstrate independent and critical thinking.
- Undergraduate students will demonstrate an understanding of the fundamentals of modern chemical instrumentation.
- Undergraduate students will effectively communicate their ideas both orally and in writing.

## Bachelor of Science in Chemistry

COURSE	TITLE	S.H.
General Education Requirements		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
STEM 1520	STEM First Year Orientation	2
Mathematics requirement included in the major		
<b>General Education Knowledge Domains</b>		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the GE model.		
Arts and Humanities		6
Natural Sciences (2 courses, one must include a lab) - NS requirement included in the major.		
Social Sciences		6
Social and Personal Awareness		6
<b>The following CHEM core courses are required (39 s.h.)</b>		
Grade of "C" or better is required. Courses cannot be taken "CR/NC"		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1515R	Recitation for General Chemistry 1	1

CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 1516R	Recitation for General Chemistry 2	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM 3720R	Organic Chemistry Recitation 2	1
CHEM 3729	Inorganic Chemistry	3
CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4
CHEM 3740 & 3740L	Physical Chemistry 2 and Physical Chemistry 2 Laboratory	4
CHEM 3785	Biochemistry 1	3
<b>The following capstone is required (3 s.h.)</b>		
CHEM 4850	Chemistry Research	1
CHEM 4850L	Chemistry Research Laboratory	2
<b>The following non-CHEM courses are required (22 s.h.)</b>		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
Electives:		
Select 12 hours of upper-division chemistry electives (from the list below)		12
4 hours of which must be in upper-division laboratory.		
CHEM 3764	Chemical Toxicology	
CHEM 3785L	Biochemistry Laboratory	
CHEM 3786	Biochemistry 2	
CHEM 3790	Undergraduate Seminar	
CHEM 4850L	Chemistry Research Laboratory	
CHEM 4860	Regulatory Aspects of Industrial Chemistry	
CHEM 4891	Special Topics	
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory	
CHEM 5821	Intermediate Organic Chemistry	
CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory	
CHEM 5830	Intermediate Inorganic Chemistry	
CHEM 5831	Inorganic Chemistry Laboratory	
CHEM 5832 & 5832L	Solid State Structural Methods and Solid State Structural Methods Laboratory	
CHEM 5836	Quantum Chemistry	
CHEM 5861 & 5861L	Polymer Science 1: Polymer Chemistry and Plastics and Polymer Science 1: Polymer Chemistry and Plastics Laboratory	
CHEM 5862 & 5862L	Polymer Science 2: Polymer Rheology, Processing, and Composites and Polymer Science 2: Polymer Rheology, Processing, and Composites Laboratory	
15 s.h. of additional hours required, 9 s.h. of which must be upper-level.		15
These electives should include courses needed to fulfill requirements of the minor.		

**Total Semester Hours****120**

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1515R	Recitation for General Chemistry 1	1
MATH 1571	Calculus 1	4
ENGL 1550	Writing 1	3
STEM 1520	STEM First Year Orientation	2
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 1516R	Recitation for General Chemistry 2	1
MATH 1572	Calculus 2	4
ENGL 1551	Writing 2	3
GER		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM 3720R	Organic Chemistry Recitation 2	1
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
MATH 2673	Calculus 3	4
<b>Semester Hours</b>		<b>14</b>
<b>Year 3</b>		
<b>Fall</b>		
CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4
CHEM 3729	Inorganic Chemistry	3
Elective		3
GER		6
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
CHEM 3740 & 3740L	Physical Chemistry 2 and Physical Chemistry 2 Laboratory	4
Upper Level Chemistry Electives		6
Elective		3
GER		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
CHEM 4850	Chemistry Research	1
CHEM 4850L	Chemistry Research Laboratory	2
CHEM 3785	Biochemistry 1	3
Upper Level Chemistry Elective		3
GER Speech Communications		3

GER	3
<b>Semester Hours</b>	<b>15</b>
<b>Spring</b>	
Upper Level CHEM Elective	3
Upper Level Electives	9
GER	3
<b>Semester Hours</b>	<b>15</b>
<b>Total Semester Hours</b>	<b>120</b>

Electives must include courses to fulfill the students chosen minor. Typically for Chemistry majors, the minor will be in Mathematics, Physics or Biology.

## Learning Outcomes

- Undergraduate students will demonstrate an understanding of the basic principles of the chemical disciplines included in their curriculum.
- Undergraduate students will demonstrate independent and critical thinking.
- Undergraduate students will demonstrate an understanding of the fundamentals of modern chemical instrumentation.
- Undergraduate students will effectively communicate their ideas both orally and in writing.
- Undergraduate students will acquire basic research skills including planning and performing an experiment and analyzing the results.

## Bachelor of Science in Biochemistry

The Bachelor of Science degree in Biochemistry is recommended for those students interested in integrating the subjects of biology and chemistry. The cross-disciplinary nature of the degree provides students with a good foundation for careers in research and development in the private sector and in academia. Many will continue their education in graduate schools or in health related fields such as medicine, dentistry, or pharmacy.

COURSE	TITLE	S.H.
General Education Requirements		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
STEM 1520	STEM First Year Orientation	2
Mathematics requirement included in the major.		
<b>General Education Knowledge Domains</b>		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the GE model.		
Arts and Humanities		
6		
Natural Sciences (2 courses, one must include a lab) - NS requirement included in the major.		
Social Science		
6		
Social and Personal Awareness		
6		
<b>The following CHEM core courses are required (41 s.h.):</b>		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1515R	Recitation for General Chemistry 1	1
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 1516R	Recitation for General Chemistry 2	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4

CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM 3720R	Organic Chemistry Recitation 2	1
CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4
CHEM 3785	Biochemistry 1	3
CHEM 3785L	Biochemistry Laboratory	1
CHEM 3786	Biochemistry 2	3
CHEM 4850	Chemistry Research	1
CHEM 4850L	Chemistry Research Laboratory	2
CHEM 5876	Enzyme Analysis	2

**Select 10 s.h. in upper-level CHEM electives from list below. At least 4 s.h. must include an upper-level laboratory:**

CHEM 3729	Inorganic Chemistry	
CHEM 3764	Chemical Toxicology	
CHEM 4850L	Chemistry Research Laboratory	
CHEM 4891	Special Topics	
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory	
CHEM 5821	Intermediate Organic Chemistry	
CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory	
CHEM 5832 & 5832L	Solid State Structural Methods and Solid State Structural Methods Laboratory	

**The following BIOL core courses are required (14 s.h.):**

BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	4
BIOL 3711	Cell Biology: Fine Structure	3
BIOL 3721	Genetics	3

**Select at least 4 s.h. in upper-level BIOL courses from the list below:**

BIOL 4800 & 4800L	Bioinformatics and Bioinformatics Laboratory	
BIOL 4801 & 4801L	Environmental Microbiology and Environmental Microbiology Laboratory	
BIOL 4829	Microbial Physiology	
BIOL 4836 & 4836L	Cell Biology: Molecular Mechanisms and Cell Biology: Molecular Mechanisms Laboratory	
BIOL 4837	Cell Biology: Protein Biology Laboratory	
BIOL 4890	Molecular Genetics	
BIOL 4890L	Molecular Genetics Laboratory	
BIOL 5840	Advanced Microbiology	

**The following support courses are required (22 s.h.):**

MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
STAT 3717	Statistical Methods	4
or STAT 3743	Probability and Statistics	
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1

**Total Semester Hours** **120**

Course	Title	S.H.	Year 4
<b>Year 1</b>			
<b>Fall</b>			
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4	
CHEM 1515R	Recitation for General Chemistry 1	1	
MATH 1571	Calculus 1	4	
ENGL 1550	Writing 1	3	
STEM 1520	STEM First Year Orientation	2	
<b>Semester Hours</b>		<b>14</b>	
<b>Spring</b>			
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4	
CHEM 1516R	Recitation for General Chemistry 2	1	
MATH 1572	Calculus 2	4	
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4	
ENGL 1551	Writing 2	3	
<b>Semester Hours</b>		<b>16</b>	
<b>Year 2</b>			
<b>Fall</b>			
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4	
CHEM 3719R	Organic Chemistry Recitation 1	1	
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5	
PHYS 2610	General Physics 1	4	
PHYS 2610L	General Physics laboratory 1	1	
<b>Semester Hours</b>		<b>15</b>	
<b>Spring</b>			
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4	
CHEM 3720R	Organic Chemistry Recitation 2	1	
PHYS 2611	General Physics 2	4	
PHYS 2611L	General Physics laboratory 2	1	
STAT 3717 or STAT 3743	Statistical Methods or Probability and Statistics	4	
<b>Semester Hours</b>		<b>14</b>	
<b>Year 3</b>			
<b>Fall</b>			
CHEM 3785	Biochemistry 1	3	
CHEM 3785L	Biochemistry Laboratory	1	
CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4	
BIOL 3721	Genetics	3	
GER		6	
<b>Semester Hours</b>		<b>17</b>	
<b>Spring</b>			
CHEM 3786	Biochemistry 2	3	
CHEM 5876	Enzyme Analysis	2	
BIOL 3711	Cell Biology: Fine Structure	3	
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	4	
GER		3	
<b>Semester Hours</b>		<b>15</b>	

Year 4		
<b>Fall</b>		
CHEM 4850	Chemistry Research	1
CHEM 4850L	Chemistry Research Laboratory	2
CHEM Upper-Level Elective		6
CMST 1545	Communication Foundations	3
GER		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CHEM Upper-Level Elective		4
BIOL Upper-Level Elective		4
GER		6
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

The undergraduate student learning outcomes for the major in chemistry are as follows:

- Students will demonstrate independent and critical thinking.
- Students will understand the fundamentals of modern chemical instrumentation.
- Students will understand the basic principles of the chemical disciplines included in their curriculum.
- Students will effectively communicate their ideas both orally and in writing.

## Bachelor of Science in Biochemistry BaccMed Track

The Bachelor of Science degree in Biochemistry, BaccMed track, is specifically designed for students interested in seeking degrees as primary care physicians. The cross-disciplinary nature of the degree provides a student with a good foundation in the sciences, psychology, sociology, and public health. The student will not only be well prepared for the rigors of medical school, but he or she will also be aware of the issues facing health care professionals as well as be better able to deal with a diverse population.

## Learning Outcomes

The learning objectives for the major in Biochemistry, BaccMed Track are as follows:

- Students will demonstrate an understanding of the fundamentals of chemistry and biology, and they will develop an appreciation for the interrelationship between these two disciplines as they apply to the field of biochemistry.
- Students will demonstrate independent and critical thinking.
- Students will demonstrate competency in the use of modern scientific instrumentation.
- Students should be able to interpret experimental data.
- Students will effectively communicate information orally and/or in writing.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
MATH 1571	Calculus 1 (also required for the major)	4
<b>General Education Knowledge Domains</b>		

Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model.

Arts & Humanities: 2 courses (6 s.h.)	6
Natural Sciences: 2 courses, one must include a lab (7 s.h.)	7
(courses below are required for the BS Biochemistry major and fulfill the Natural Sciences General Education requirement)	
CHEM 1515 & 1515L General Chemistry 1 and General Chemistry 1 Laboratory	
CHEM 1516 & 1516L General Chemistry 2 and General Chemistry 2 Laboratory	
Social Science: 2 courses (6 s.h.)	6
PSYC 1560 General Psychology	
Social & Personal Awareness: 2 courses (6 s.h.)	6
PHLT 1531 Fundamentals of Public Health	
SOC 3745 Sociology of Health, Illness, and Healthcare	

General Education Elective: 1 course - NOTE: Beginning Fall 2017, students should take STEM 1520, STEM First Year Orientation (2 sh), to fulfill this requirement.

**The following CHEM core courses are required (38 s.h.):**

CHEM 1515 & 1515L General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1515R Recitation for General Chemistry 1	1
CHEM 1516 & 1516L General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 1516R Recitation for General Chemistry 2	1
CHEM 2604 & 2604L Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3719 & 3719L Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
CHEM 3719R Organic Chemistry Recitation 1	1
CHEM 3720 & 3720L Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM 3720R Organic Chemistry Recitation 2	1
CHEM 3739 & 3739L Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4
CHEM 3785 Biochemistry 1	3
CHEM 3785L Biochemistry Laboratory	1
CHEM 3786 Biochemistry 2	3
CHEM 5876 Enzyme Analysis	2

**The following capstone is required (3 s.h.):**

CHEM 4850 Chemistry Research	1
CHEM 4850L Chemistry Research Laboratory	2

**The following BIOL core courses are required (14 s.h.):**

BIOL 2603 Integrated Biology for BS/MD	4
BIOL 3702 & 3702L Microbiology and Microbiology Laboratory	4
BIOL 3711 Cell Biology: Fine Structure	3
BIOL 3721 Genetics	3

**The following non-CHEM courses are required (22 s.h.):**

MATH 1581H Honors Biomathematics 2	4
or MATH 1571 Calculus 1	
MATH 1572 Calculus 2	4
STAT 3743 Probability and Statistics	4
or STAT 3717 Statistical Methods	
PHYS 2610 & 2610L General Physics 1 and General Physics laboratory 1	5
PHYS 2611 General Physics 2	4
PHYS 2611L General Physics laboratory 2	1

**Required Electives:**

Select 7 s.h. in upper level CHEM electives (3000 or higher) from the list below. It is recommended that one elective course includes a laboratory.

CHEM 3729 Inorganic Chemistry	3
CHEM 3764 Chemical Toxicology	3
CHEM 4850L Chemistry Research Laboratory	2-3
CHEM 4891 Special Topics	1-3
CHEM 5804 & 5804L Chemical Instrumentation and Chemical Instrumentation Laboratory	4
CHEM 5821 Intermediate Organic Chemistry	3
CHEM 5822 & 5822L Advanced Organic Laboratory and Advanced Organic Laboratory	4
CHEM 5832 & 5832L Solid State Structural Methods and Solid State Structural Methods Laboratory	3

**Select 3 s.h. in upper-level BIOL courses from the list below.**

BIOL 3703 Clinical Immunology	3
BIOL 3730 Human Physiology	4
BIOL 4829 Microbial Physiology	3
BIOL 4836 & 4836L Cell Biology: Molecular Mechanisms and Cell Biology: Molecular Mechanisms Laboratory	3
BIOL 4837 Cell Biology: Protein Biology Laboratory	1
BIOL 4890 Molecular Genetics	3
BIOL 4890L Molecular Genetics Laboratory	1
BIOL 5840 Advanced Microbiology	3

**Other Required Courses:**

PHLT 3709 Elements of Urban Environmental Health Practices	3
PHLT 3725 Topics in Public Health	3

**Course Title S.H.**

**Year 1 Summer**

Second Summer Session

BIOL 2603 Integrated Biology for BS/MD	4
PSYC 1560 General Psychology	3

**Semester Hours**

**7**

**Fall**

CHEM 1515 & 1515L General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1515R or MATH 1571 Recitation for General Chemistry 1 or Calculus 1	1
MATH 1571 Calculus 1	4
ENGL 1550 Writing 1	3
GER Social Sciences	3

**Semester Hours**

**15**

**Spring**

CHEM 1516 & 1516L General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 1516R Recitation for General Chemistry 2	1
MATH 1572 Calculus 2	4
ENGL 1551 Writing 2	3
BIOL 3711 Cell Biology: Fine Structure	3

**Semester Hours**

**15**

**Year 2**

**Summer**

First Summer Session

CHEM 3719 & 3719L Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
CHEM 3719R Organic Chemistry Recitation 1	1
PHLT 1531 Fundamentals of Public Health	3

Second Summer Session		
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM 3720R	Organic Chemistry Recitation 2	1
SOC 3745	Sociology of Health, Illness, and Healthcare	3

**Semester Hours** 16

**Fall**

CHEM 3785	Biochemistry 1	3
CHEM 3785L	Biochemistry Laboratory	1
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics laboratory 1	1
BIOL 3721	Genetics	3
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	4

**Semester Hours** 16

**Spring**

CHEM 3786	Biochemistry 2	3
CHEM 5876	Enzyme Analysis	2
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
STAT 3743 or STAT 3717	Probability and Statistics or Statistical Methods	4

**Semester Hours** 14

**Year 3****Summer**

First Summer Session

CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
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Second Summer Session

CMST 1545	Communication Foundations	3
GER Arts & Humanities		3

**Semester Hours** 11

**Fall**

CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4
CHEM 4850	Chemistry Research	1
CHEM Upper-level Elective		4
PHLT 3709	Elements of Urban Environmental Health Practices	3

**Semester Hours** 12

**Spring**

CHEM 4850L	Chemistry Research Laboratory	2
CHEM Upper-level Elective		3
BIOL Upper-level Elective		3
PHLT 3725	Topics in Public Health	3
GER Arts & Humanities		3

**Semester Hours** 14

**Total Semester Hours** 120

## Minor in Chemistry

COURSE	TITLE	S.H.
CHEM 1515	General Chemistry 1	4
CHEM 1515L	General Chemistry 1 Laboratory	0
CHEM 1516	General Chemistry 2	4
CHEM 1516L	General Chemistry 2 Laboratory	0
CHEM 3719	Organic Chemistry 1	4

CHEM 3719L	Organic Chemistry 1 Laboratory	0
Select two of the following:		6-9
CHEM 2604	Quantitative Analysis	
CHEM 2604L	Quantitative Analysis Laboratory	0
CHEM 3720	Organic Chemistry 2	
CHEM 3720L	Organic Chemistry 2 Laboratory	0
CHEM 3729	Inorganic Chemistry	
CHEM 3739	Physical Chemistry 1	
CHEM 3739L	Physical Chemistry 1 Laboratory	0
CHEM 3764	Chemical Toxicology	
CHEM 3785	Biochemistry 1	
CHEM 4850 & 4850L	Chemistry Research and Chemistry Research Laboratory	

**Total Semester Hours** 18-21

## Department of Civil/Environmental and Chemical Engineering

In Fall 1998, the Department of Civil and Environmental Engineering was combined with the Department of Chemical Engineering to form the Department of Civil/Environmental and Chemical Engineering. The department now houses two distinct programs—Civil Engineering (CE) and Chemical Engineering (ChE)—with separate faculty lines dedicated to each program. Both programs offer BE and MS degrees.

For more information on each program, visit the College of Science, Technology, Engineering and Mathematics (<http://www.yzu.edu/academics/science-technology-engineering-mathematics>).

**Chair**

**AKM Anwarul Islam**, Ph.D., Professor, Chair

**Professor**

**Martin A. Abraham**, Ph.D., Professor

**Pedro Cortes**, Ph.D., Associate Professor

**Richard Albert Deschenes, Jr.**, Ph.D., Assistant Professor

**Jeanette M. Garr**, Ph.D., Professor

**Shakir Husain**, Ph.D., Professor

**Jai K. Jung**, Ph.D., Assistant Professor

**Holly J. Martin**, Ph.D., Assistant Professor

**Douglas M. Price**, Ph.D., Associate Professor

**Suresh Sharma**, Ph.D., Assistant Professor

**Anthony S. Vercellino**, Ph.D., Assistant Professor

## Majors

- Chemical Engineering Program (p. 483)
- Civil Engineering Program (p. 487)



## Civil and Environmental Engineering

### CEEN 2601 Statics 3 s.h.

Principles of engineering mechanics as applied to statics with vector applications to forces and moments; centroid and center of gravity; equilibrium; friction; moments of inertia: relationship between loads, stress and strain in tension, compression, torsion and bending.

**Prereq.:** MATH 1572 and PHYS 2610 or concurrent.

### CEEN 2602 Strength of Materials 3 s.h.

Relationships between loads, shear and bending moments in beams; combined stresses in beams; indeterminate beam analysis; virtual load; connections; columns.

**Prereq.:** CEEN 2601.

### CEEN 2602L Strength of Materials Lab 1 s.h.

Experimental verification of strength of materials; testing: tension, torsion, non-destructive tests of steel; concrete compression and Poisson ration, wood tests.

**Prereq.:** Concurrent with: CEEN 2602.

### CEEN 2610 Surveying 3 s.h.

The theory of surveying and the use of instruments. Problems in leveling, traversing, and topography. Introduction to circular and vertical curves.

**Prereq.:** MATH 1513 or equivalent.

### CEEN 2610L Surveying Laboratory 1 s.h.

Field surveying principles and techniques. Uses of transit and level are stressed. Three laboratory hours per week.

**Prereq.:** Concurrent with: CEEN 2610.

### CEEN 2660 Computer Aided Design and Drafting 2 s.h.

This course is designed for students who wish to be involved with the civil engineering design fields and for those interested in computer aided design and drafting. Students will be introduced to both traditional and computer aided design and drafting skills. The aim of this course is to introduce students to basic information, skills, and concepts related to drafting and design. Special attention is given to: sketching, measurement, room planning, multi-view drawing, auxiliary views, working drawings, sectional views, orthographic drawings along with AutoCAD tools and commands. The course includes 1 s.h. lecture and 1 s.h. lab.

### CEEN 3711 Technology and Society 3 s.h.

A critical exploration of how societal needs affect the creation of technologies and how technology affects society. The course is interdisciplinary in nature and presents various approaches to examining the complex interaction between humans and their tools. Topics include: (1) technology in human history; (2) society, science, and technology development; (3) technology and social change; (4) technology, knowledge, and power; (5) technology, population, and the environment. Listed also as SOC 3789.

**Prereq.:** Junior standing or consent of instructor.

### CEEN 3716 Fluid Mechanics 3 s.h.

Proportions of fluids, fluid statics, kinematics; Bernoulli equation; fluid momentum; laminar and turbulent flow through simple pipes; boundary layers; dimensional analysis and similitude.

**Prereq.:** CEEN 2602.

### CEEN 3716L Fluid Mechanics Lab 1 s.h.

Experimental verification of the principles of fluid mechanics as applied to incompressible fluid. Three hours laboratory per week. Must be taken concurrently with CEEN 3716.

**Prereq.:** ENGR 1560, ENGR 1560H.

### CEEN 3717 Hydraulic Design 4 s.h.

Analysis of flow in complex pipe systems; pumps; open channel flow; culverts; spillways; storm water drainage. Three hours lecture and three hours of computational laboratory per week.

**Prereq.:** CEEN 2610 and CEEN 3716.

### CEEN 3720 Transportation Engineering 3 s.h.

Introductory survey of transportation topics including transportation systems, vehicular operation and control, and transportation planning techniques; introduction to design of highways, airports, and railroads; and traffic engineering.

**Prereq.:** CEEN 2610.

### CEEN 3736 Fundamentals of Environmental Engineering 3 s.h.

Causes and effects of water, air and land pollution; measurements of environmental quality; environmental regulations; introduction to methods of pollution control.

**Prereq.:** CHEM 1515, ENGR 1560, ENGR 1560H, or consent of instructor.

### CEEN 3749 Structural Analysis 1 3 s.h.

The determination of shears, moments, and stresses in statically determinate beams, frames, and trusses. Consideration of dead, live, moving, and wind loads. Elastic deflections of simple structures. Introduction to the analysis of statically indeterminate structures using numerical and energy methods.

**Prereq.:** CEEN 2602.

### CEEN 3749L Structural Analysis 1 Lab 1 s.h.

Introduction to stiffness-based analysis of determinate and indeterminate structures. Computer analysis of various structural systems, including plane and space trusses, continuous beams, plane and space frames, plates. P-delta stability analysis of frames. Three hours computational lab per week.

**Prereq.:** CEEN 2602; concurrent with CEEN 3749.

### CEEN 3751 Water Quality Analysis 3 s.h.

Introduction to physical, chemical, and biological measurements of water quality. Sample collection and laboratory analysis of natural waters, drinking water, and wastewater. Interpretation of environmental data. Two hours lecture and three hours laboratory per week. Identical to ENST 3751.

**Prereq.:** CEEN 3736 or ENST 2600; CHEM 1515.

### CEEN 3751L Water Quality Analysis Lab 0 s.h.

Laboratory experience in the analysis of natural waters, drinking water and wastewater. Emphasizes procedures for the collection and interpretation of data on current environmental problems. Three hours laboratory per week. Must be taken concurrently with CEEN 3751.

### CEEN 4800 Special Topics 3 s.h.

Special topics and new developments in Civil Engineering. Subject matter, credit hours, and special prerequisites to be announced in advance of each offering. May be repeated to a maximum of 6 s.h.

**Prereq.:** Senior standing or consent of instructor.

### CEEN 4812 Construction Management 3 s.h.

Fundamentals of construction management: contracts, bonding, estimating, organization, finance; cost and productivity of equipment, material, and labor; and project planning and scheduling.

**Prereq.:** CEEN 3717 or CEEN 4881.

### CEEN 4835 Highway Design 3 s.h.

Methods of highway route location; design methods and standards for highways, intersections, freeways, and interchanges. Includes extensive use of computer-aided design.

**Prereq.:** CEEN 3720.

### CEEN 4863 Integrated Design Project 3 s.h.

Students will be required to complete a meaningful design experience that focuses attention on professional practice and is predicated on the accumulated background of curriculum components. Two hours of lecture and three hours of laboratory a week.

**Prereq.:** CEEN 5855 and GPA of 2.0 or better.

**Gen Ed:** Capstone.

### CEEN 4879 Civil Engineering Analysis 3 s.h.

Application of mathematical and numerical methods to the systematic analysis and development of problems in the field of Civil Engineering.

**Prereq.:** CEEN 3749.

**CEEN 4881 Geotechnical Engineering 3 s.h.**

Properties of soil, classification, capillarity, seepage, permeability, stresses, consolidation, shear strength; analysis and design of foundation structures, retaining walls, piles, drilled piers, sheet pile walls, special footings, stability.

**Prereq.:** MATH 2673; CEEN 3749.

**CEEN 4881L Geotechnical Lab 1 s.h.**

Typical soil testing procedures and physical testing of soil samples.

**Prereq.:** Concurrent with: CEEN 4881.

**CEEN 5820 Pavement Material and Design 3 s.h.**

Design methods for flexible, rigid and other wheel-supporting pavements to include investigation, testing and preparation of subgrade, base course and pavement materials, design of various pavement mixtures, stresses in pavements, pavement design, and strengthening existing pavements.

**Prereq.:** CEEN 3720 and CEEN 4881.

**CEEN 5829 Civil Engineering Materials - Concrete 3 s.h.**

A course designed to broaden the student's understanding of Portland Cement Concrete as a construction material. Topics include the study of cement, hydration of cement, aggregates, admixtures for concrete, mix design handling and placing, curing and properties of Portland Cement Concrete. Testing of Concrete, quality control and special concretes are also included. A library research paper on a concrete-related topic of the student's choice is required.

**Prereq.:** CEEN 3749 or permission of instructor.

**CEEN 5832 Natural Systems Engineering 3 s.h.**

Introduction to the features, functions and values of natural aquatic systems, and engineering approaches to analysis and restoration design. Focus on wetlands and streams. Topics include regulations, wetland delineation, constructed wetland design, basic stream geomorphology, and stream restoration design.

**Prereq.:** CEEN 3736 or permission of instructor.

**CEEN 5837 Environmental Engineering Design 3 s.h.**

Theory and design of unit operations and processes for treatment of drinking water and municipal wastewater.

**Prereq.:** CEEN 3736.

**CEEN 5849 Structural Analysis 2 3 s.h.**

Analysis of statically indeterminate beams, trusses, bents and multistory frames, utilizing concepts of strain energy, virtual work, slope-deflection, and moment distribution. Introduction to matrix methods of analysis using force and displacement methods.

**Prereq.:** CEEN 3749.

**CEEN 5855 Reinforced Concrete Design 3 s.h.**

An introduction to the behavior, analysis, and design of reinforced concrete members. Included are singly and doubly reinforced beams, tee-beams, slabs, short and long columns.

**Prereq.:** CEEN 3749.

**CEEN 5856 Steel Design 3 s.h.**

An introduction to the behavior and design of steel structures. Included is the design of rolled and built-up tension members, beams, columns, beam-columns, welded and bolted connections.

**Prereq.:** CEEN 3749.

**CEEN 5877 Systems Engineering and Project Management 3 s.h.**

Systems approach to engineering design; non-linear models; linear programming; dynamic programming; network analysis; project management.

**Prereq.:** MATH 3705.

**CEEN 5882 Foundation Engineering 3 s.h.**

Analysis and design of various foundations, including abutments, piers, piles, and footings; slope stability of embankments.

**Prereq.:** CEEN 4881 and CEEN 5855.

**CEEN 5883 Bridge Engineering 3 s.h.**

Analysis and design of concrete and steel bridges; specifications and code requirements; design detailing; effects of natural and man-made hazards on bridges; implications of bridge failures.

**Prereq.:** CEEN 5855 and CEEN 5856.

**CEEN 5884 Solid and Hazardous Waste Management 3 s.h.**

Sources, characteristics, handling and disposal options for solid waste and hazardous waste; topics include regulations, health effects, waste minimization, collection systems, landfill design, treatment and processing methods, and site assessment.

**Prereq.:** CEEN 3736.

## Chemical Engineering

**CHEN 2630 Applied Engineering 1 1 s.h.**

Physics, chemistry, and calculus applications to problems in general engineering with focus on EIT/FE exam questions, strength and properties of materials. Topics include: mechanics, dynamics, kinematics, conservation equations. Three-hour computational lab.

**Prereq.:** PHYS 2610 or permission of instructor.

**CHEN 2631 Applied Engineering 2 1 s.h.**

Physics, chemistry, and calculus applications to problems in general engineering with focus on EIT/FE exam questions, strength and properties of materials. Topics include: wave phenomena (light, sound), electricity (circuits), magnetism, materials, strength of materials. Three-hour computational lab.

**Prereq.:** CHEN 2630 or permission of instructor.

**CHEN 2650 Computer Methods in Chemical Engineering 2 s.h.**

Application of computational software packages and spreadsheets to solve chemical engineering problems. Utilization of process simulation packages. Real-time computing applications in laboratory automation.

**Prereq.:** ENGR 1560, ENGR 1560H or consent of instructor.

**CHEN 2681 Industrial Stoichiometry 3 s.h.**

To aid the non-chemical engineer to organize, analyze, and effectively utilize the information inherent in chemically stoichiometric relationships, as they apply to actual plant situations.

**Prereq.:** MATH 1571, CHEM 1516.

**CHEN 2683 Chemical Engineering Principles 1 3 s.h.**

Engineering units and dimensions. Hydrostatics. Material balances for non-reacting and reacting processes. Ideal and non-ideal gas relationships. Ideal multi-phase equilibrium calculations.

**Prereq.:** MATH 1571 or MATH 1585H, CHEM 1515.

**CHEN 2684 Chemical Engineering Principles 2 3 s.h.**

Energy balances on reacting and non-reacting processes. Utilization of energy balances on multi-phase processes. Mass and energy balances on transient processes.

**Prereq.:** CHEN 2683.

**CHEN 2688 Energy Assessment 3 s.h.**

Concept of energy assessment. Technology of energy production that includes coal gasification, liquefaction, magnetohydrodynamics, utilization of shale oil, solar, geothermal, and chemical energy. Nuclear energy utilization. Fuel from wastes. Energy resource distribution and future supply and demand. Simple calculations relating to fuel saving, production, and consumption. Primarily for non-engineering students.

**CHEN 3700 Measurement Laboratory 1 s.h.**

Computer application in real-time data acquisition and laboratory data processing. Measurements of physical and chemical properties. Oral presentations and preparation of technical reports.

**Prereq.:** Acceptance in any engineering program.

**CHEN 3718 Women, Science, and Technology 3 s.h.**

An overview of the role women have played in scientific and technological advances. Problems unique to women entering scientific professions will be addressed, information about scientific and technical careers and job opportunities and contacts with professionals in the community will be provided.

**Prereq.:** ENGL 1550.

**CHEN 3721 Engineering Plastics 3 s.h.**

Preparation, characterization, manufacture, properties and applications of commercial polymers.

**Prereq.:** CHEN 2684 and CHEM 3719; or consent of instructor.

**CHEN 3726 Elementary Nuclear Reactor Engineering 3 s.h.**

Basic engineering science to serve as background material for nuclear reactor design. Nuclear fission as an energy source. Reactor use and classification. Comprehensive discussion of reactor design problems such as neutron distribution in the core, type of moderator, heat removal, and radiation protection.

**Prereq.:** MATH 2673, PHYS 2610.

**CHEN 3771 Chemical Engineering Thermodynamics 1 3 s.h.**

Development of the concepts and formalisms of thermodynamics and their applications to chemical engineering systems. Real and ideal behavior of single and multicomponent systems. Introduction to the thermodynamics of phase equilibria. Analysis and design of thermal systems. Additional topics include applications in transport phenomena and plant design.

**Prereq.:** MATH 2673 or MATH 2686H and CHEN 2684.

**CHEN 3772 Chemical Engineering Thermodynamics 2 3 s.h.**

Development of the concepts and formalisms of thermodynamics and their applications to chemical engineering systems. Real and ideal behavior of single and multicomponent systems. Introduction to the thermodynamics of phase equilibria. Analysis and design of thermal systems. Additional topics include applications in transport phenomena and plant design.

**Prereq.:** CHEN 3771.

**CHEN 3785L Transport Phenomena Laboratory 1 s.h.**

Experimental studies of transport properties and momentum, energy and mass transfer using industrial type equipment. Correlation of data and comparison with theory. Oral presentations and preparation of technical reports. Three hours laboratory.

**Prereq.:** CHEN 3786 or concurrent.

**CHEN 3786 Transport Phenomena 1 4 s.h.**

Mathematical formulation of conversion laws. Dimensional analysis. Mechanism and fundamentals of momentum and energy transfer with selected applications to analysis and design of chemical engineering equipment. Three hours lecture and three hours computational lab per week.

**Prereq.:** MATH 2673 or MATH 2686H and CHEN 2684.

**CHEN 3787 Transport Phenomena 2/Unit Operations 1 3 s.h.**

Mass transfer processes. Diffusional operations and separation processes with emphasis on evaporation, humidification and drying. Derivation of design equations from mass and energy balances, and application to equipment design. Solution of simultaneous differential equations of mass, momentum, and energy.

**Prereq.:** CHEN 3786.

**CHEN 3787L Unit Operations Laboratory 1 1 s.h.**

Experiments in absorption, cascade operations, reaction kinetics, mixing and other chemical engineering operations employing industrial and pilot plant size equipment and instrumentation. Treatment of experimental data, correlations and comparison with theory. Oral presentations and preparation of technical reports. Three hour laboratory.

**Prereq.:** CHEN 3787.

**CHEN 4801 Chemical Engineering Projects 3 s.h.**

Chemical engineering projects under the guidance of a faculty member. Literature search, design and construction of apparatus, experimentation and preparation of a comprehensive report.

**Prereq.:** Consent of instructor.

**CHEN 4802 Chemical Engineering Projects 3 s.h.**

Chemical engineering projects under the guidance of a faculty member. Literature search, design and construction of apparatus, experimentation and preparation of a comprehensive report.

**Prereq.:** Consent of instructor.

**CHEN 4803 Chemical Engineering Projects 3 s.h.**

Chemical engineering projects under the guidance of a faculty member. Literature search, design and construction of apparatus, experimentation and preparation of a comprehensive report.

**Prereq.:** Consent of instructor.

**CHEN 4815 Unit Operations 2 3 s.h.**

Gas absorption and desorption, interphase mass transfer processes, liquid extraction and leaching. Physical separation processes including filtration, settling, and size reduction. Derivation of the design equations for the above processes, and applications of the design equations to equipment design.

**Prereq.:** CHEN 3787.

**CHEN 4815L Unit Operations Laboratory 2 1 s.h.**

Experiments in absorption, cascade operations, reaction kinetics, mixing and other chemical engineering operations employing industrial and pilot plant size equipment and instrumentation. Treatment of experimental data, correlations and comparison with theory. Oral presentations and preparation of technical reports. Three hour laboratory.

**Prereq.:** CHEN 4815.

**CHEN 4822 Reinforced Polymer Structures 3 s.h.**

Survey of raw materials, manufacturing methods, and design of products utilizing reinforcing materials combined with an elastomer or polymer binder.

**Prereq.:** CHEN 2684 or consent of instructor.

**CHEN 4840 Biochemical Engineering Fundamentals 3 s.h.**

Design of biological reactors, bioremediation schemes, methods for the purification and mass production of chemical species from living organisms or cultures, extraction, and fermentation. Technologies and processing of recombinant DNA, antibiotics, antibodies, vitamins, steroids, and methane are included. Essentials of microbiology, biochemistry, and genetics will precede industrial applications.

**Prereq.:** junior standing.

**Prereq.:** CHEN 2684 or consent of instructor.

**CHEN 4845 Chemical Engineering Analysis 3 s.h.**

Modeling of processes from unit operations, transport phenomena, and thermodynamics. Topics include the determination of limiting and generalized operating conditions, estimations of operating variables, and process balance of energy, mass, and momentum transfer.

**Prereq.:** CHEN 2684 or consent of instructor.

**CHEN 4880 Chemical Reactor Design 1 3 s.h.**

Chemical reaction equilibria. Theoretical developments and methods of interpreting experimental data pertaining to chemical kinetics. General design principles and construction features of reactors with application of these principles to the design of specific reactors.

**Prereq.:** CHEN 3771.

**CHEN 4881 Chemical Reactor Design 2 3 s.h.**

Chemical reaction equilibria. Theoretical developments and methods of interpreting experimental data pertaining to chemical kinetics. General design principles and construction features of reactors with application of these principles to the design of specific reactors.

**Prereq.:** CHEN 4880.

**CHEN 4882 Process Dynamics 3 s.h.**

Introduction to automatic control and control loop concepts. Laplace transform techniques. Linear open-loop and closed-loop systems. Root-locus and frequency response methods. Design of control systems.

**Prereq.:** CHEN 3786.

**CHEN 4882L Process Dynamics Laboratory 1 s.h.**

Experimental studies in process dynamics and control. Treatment of experimental data with correlation and comparison with theory. Oral presentations and preparation of technical reports. Three hours of laboratory.

**Prereq.:** CHEN 4882.

**CHEN 4887 Process and Plant Design 1 3 s.h.**

An examination of engineering economic analysis to include: cost estimation, profitability, optimum design, principles of fixed and operating costs, materials and site selection, and general and specialized design techniques.

**Prereq.:** CHEN 3787 and unrecalculated GPA of 2.0 or better in major courses.

**CHEN 4888 Process and Plant Design 2 3 s.h.**

The application of chemical engineering and cost principles to the component design and selection of process equipment. The application of chemical engineering and cost principles to the design of chemical plants and processes including societal aesthetic, environmental, and safety considerations.

**Prereq.:** CHEN 4887.

**CHEN 5800 Special Topics 1-4 s.h.**

Special topics and new developments in chemical engineering. Subject matter, credit hours, and special prerequisites to be announced in advance of each offering.

**Prereq.:** Consent of instructor.

**CHEN 5805 Principles of Biomedical Engineering 3 s.h.**

Application of engineering principles and methods of analysis to processes in the human body. Rheological, physical and chemical properties of body fluids. Dynamics of the circulatory system. The human thermal system. Transport through cell membranes. Analysis and design of artificial organs.

**Prereq.:** CHEN 2684 or consent of instructor.

**CHEN 5810 The Business of Engineering 3 s.h.**

Industrial processing facilities, and the engineers and business people that run them. Decision-making perspectives and the technical and communication skills of each group are compared. Focus is on quality control, R&D, and efficiency.

**CHEN 5811 Advanced Transport Phenomena 3 s.h.**

Development of basic differential balance equations for mass, momentum and energy. Analytical and approximate solutions to the equation of change with application to the analysis of common engineering problems.

**Prereq.:** CHEN 3786.

**CHEN 5820 Industrial Pollution Control 3 s.h.**

Types, sources and effects of industrial and hazardous waste; principles of industrial and hazardous waste control; discussion and design of biological, physical, and chemical treatment processes.

**Prereq.:** CHEN 2684 or consent of instructor.

**CHEN 5821 Fundamentals of Polymer Science 3 s.h.**

The survey of polymerization mechanisms, polymer structure-property relationships, transport properties, flammability-related plasticizers and solvents as well as design applications.

**Prereq.:** CHEN 2684 or consent of instructor.

**CHEN 5830 Nuclear Reactors 3 s.h.**

Neutron interactions and scattering; moderation ratio, the steady state reactor core and four factor equation, the diffusion equation for various reactor geometries and the reflected reactor core.

**Prereq.:** CHEN 3726 or consent of instructor.

**CHEN 5835 Introduction to Nuclear Fusion 3 s.h.**

Fusion reactors; the kinetics of fusion reactions. Plasma confinement technology.

**Prereq.:** CHEN 3726.

**CHEN 5845 Corrosion Engineering 3 s.h.**

Introduction to causes and forms of corrosion, corrosion rate calculations, electrode potentials, electrochemistry, corrosion testing, and effects of corrosion on mechanical properties. Theory and use of corrosion inhibition methods.

**Prereq.:** CHEN 2684.

**CHEN 5850 Industrial Processes 3 s.h.**

A fundamental approach to the design of industrial chemical processes. Emphasis upon flow-charting, chemical reactions, separations involved, thermodynamics, and economic considerations. Food and pharmaceutical processing is a major focus.

**Prereq.:** CHEN 2684 or consent of instructor.

**CHEN 5854 Corrosion Engineering 3 s.h.**

Introduction to causes and forms of corrosion, corrosion rate calculations, electrode potentials, electro-chemistry, corrosion testing, and effects of corrosion on mechanical properties. Theory and use of corrosion inhibition methods.

**Prereq.:** Junior or Senior Standing or Approval of the Instructor.

**CHEN 5883 Mathematical Methods in Chemical Engineering 3 s.h.**

The applications of advanced mathematics to the solution of chemical engineering problems. Topics covered include treatment and interpretation of engineering data, modeling of chemical engineering systems and formulation of ordinary and partial differential equations governing chemical engineering operations and their solutions by use of numerical and analytical techniques.

**Prereq.:** CHEN 3786.

**CHEN 5886 Nuclear Reactor Design 3 s.h.**

The steady state reactor core; four-factor equation, resonance escape probability, neutron flux distribution in various geometrics, two-group and multigroup theories. Transient reactor behavior and control; effect of delayed neutrons, fission product poisoning, nuclear fuels, nuclear heat transfer and burnout problems, reactor economy; fuel burnup and power cost. Thermal breeder and fast reactors. Neutron flux distribution measurements. Radiation detection and monitoring.

**Prereq.:** CHEN 3726 or consent of instructor.

## Bachelor of Engineering in Chemical Engineering

### Introduction

The Chemical Engineering Program at Youngstown State University—supplemented with courses in chemistry, physics, mathematics, and general engineering—provides a broad preparation for design, operation, and management in the chemical, biomedical, biological, nuclear, pharmaceutical, and energy-conversion industries, as well as graduate study leading to research positions in industry and government and to academic careers.

### Program Contact Information

Dr. Pedro Cortes - Associate Professor  
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Dr. Holly Martin - Assistant Professor  
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Dr. Douglas Price - Associate Professor and Program Coordinator  
(330) 941-3019  
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### Educational Objectives

Graduates of the chemical engineering program at YSU:

- Pursue careers as practicing chemical engineers in chemical and energy-related industries as well as in areas of materials, environmental, and biomedical engineering and biotechnology.
- Demonstrate strong, functional command of chemical engineering fundamentals and communication skills.
- Are aware of the scope of the chemical engineering profession and its global opportunities and requirements.

- Exhibit professional responsibility and a sensitivity to a broad range of societal concerns including ethical, environmental, political, regulatory, and global issues in making decisions.

## Mission

The mission of the Chemical Engineering program is to:

1. Offer a wide variety of electives to students according to the global trend in chemical engineering
2. Provide real world experiences to students through laboratory study and capstone experiences
3. Conduct research with faculty in the areas commonly associated with traditional chemical engineering disciplines and their impact on the local and global environment
4. Participate in interdisciplinary programs.

## Admission into the Program

To be admitted into the program, students are required to have an overall GPA of 2.3 and a grade of "C" or higher in CHEM 1515/L, MATH 1571, and ENGL 1550. Students can only repeat these courses one time.

## Graduation Policy

In addition to the overall recalculated "C" average required by the University, an unrecalculated "C" average in the major is required. Also, an unrecalculated "C" average in all engineering courses is required.

## Accreditation

- The Chemical Engineering Program at Youngstown State University has been continuously accredited by ABET (<http://www.abet.org>) from October 1, 1974, to the present.
- The last campus visit by ABET was October 27 - 29, 2013.
- The next campus visit by ABET will be in the 2019 - 2020 academic year.

## CHEMICAL ENGINEERING ANNUAL ENROLLMENT AND GRADUATION DATA

Academic Year Bachelor of Engineering Fall Enrollment Spring Enrollment

Degrees Awarded

2010-2011 18 57 62

2011-2012 25 58 58

2012-2013 10 49 48

2013-2014 16 58 55

2014-2015 17 66 77

2015-2016 24 100 101

2016-2017 24 127 123

2017-2018 Year not completed 141 TBD

## Co-Operative Education and Internships

The Chemical Engineering Program encourages all of its students to participate in co-ops and internships prior to graduation. Students should register with the STEM Office of Professional Practice in order to participate.

## Facilities

The chemical engineering laboratories are well-equipped for undergraduate instruction and student and faculty research. The equipment includes fluid flow apparatus, concentric tube and plate and frame heat exchangers, thermal

conductivity apparatus, boiling heat transfer apparatus, tray dryer, double effect evaporator, computer-controlled distillation tower, gas absorption and liquid-liquid extraction columns, chemical reactors, electrostatic particle separator, centrifuges, filter presses, and other miscellaneous equipment.

For more information, contact Douglas M. Price, Program Coordinator.

COURSE	TITLE	S.H.
<b>Chemical Engineering Courses</b>		
CHEN 2650	Computer Methods in Chemical Engineering	2
CHEN 2683	Chemical Engineering Principles 1	3
CHEN 2684	Chemical Engineering Principles 2	3
CHEN 3771	Chemical Engineering Thermodynamics 1	3
	Chemical Engineering Thermodynamics Recitation	1
CHEN 3785L	Transport Phenomena Laboratory	1
CHEN 3786	Transport Phenomena 1	4
CHEN 3787	Transport Phenomena 2/Unit Operations 1	3
CHEN 3787L	Unit Operations Laboratory 1	1
CHEN 4815	Unit Operations 2	3
	Unit Operations 2 Recitation	1
CHEN 4880	Chemical Reactor Design 1	3
	Chemical Reactor Design Recitation	1
CHEN 4882	Process Dynamics	3
CHEN 4887	Process and Plant Design 1	3
CHEN 4888	Process and Plant Design 2	3
	Chemical Engineering Elective 1	3
	Chemical Engineering Elective 2	3
<b>Mathematics Courses</b>		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
	Honors Calculus 1 and 2 can be substituted for Calculus 1, 2, and 3	
MATH 3705	Differential Equations	3
<b>Chemistry Courses</b>		
CHEM 1515	General Chemistry 1	4
CHEM 1515L	General Chemistry 1 Laboratory	0
CHEM 1516	General Chemistry 2	4
CHEM 1516L	General Chemistry 2 Laboratory	0
CHEM 3719	Organic Chemistry 1	4
CHEM 3719L	Organic Chemistry 1 Laboratory	0
CHEM 3720	Organic Chemistry 2	4
CHEM 3720L	Organic Chemistry 2 Laboratory	0
CHEM 3739	Physical Chemistry 1	4
	Physical Chemistry 1 for Chemical Engineers can be substituted for Physical Chemistry 1	
CHEM 4860	Regulatory Aspects of Industrial Chemistry	1
	Advanced Chemistry/Biology Elective	3
<b>Physics Courses</b>		
PHYS 2610	General Physics 1	4
PHYS 2611	General Physics 2	4
<b>Communication Courses</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
<b>General Education Courses</b>		
<b>Arts and Humanities</b>		
PHIL 1561	Technology and Human Values	3
OR		

PHIL 2625	Introduction to Professional Ethics	3
OR		
PHIL 2626	Engineering Ethics	3
OR		
PHIL 2628	Business Ethics	3
Other Arts and Humanities Elective		3
Social Science Elective		
Select 2 Courses		
Social and Personal Awareness Elective		
Select 2 Courses		

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
MATH 1571	Calculus 1	4
GER AH-1	Arts and Humanities Elective	3
<b>Semester Hours</b>		<b>17</b>

<b>Spring</b>		
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
ENGR 1560	Engineering Computing	2
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
MATH 1572	Calculus 2	4
<b>Semester Hours</b>		<b>16</b>

<b>Year 2</b>		
<b>Fall</b>		
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
MATH 2673	Calculus 3	4
PHYS 2610	General Physics 1	4
CHEN 2650	Computer Methods in Chemical Engineering	2
CHEN 2683	Chemical Engineering Principles 1	3
<b>Semester Hours</b>		<b>17</b>

<b>Spring</b>		
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
MATH 3705	Differential Equations	3
PHYS 2611	General Physics 2	4
CHEN 2684	Chemical Engineering Principles 2	3
<b>Semester Hours</b>		<b>14</b>

<b>Year 3</b>		
<b>Fall</b>		
Engineering Elective <sup>3</sup>		3
CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4
CHEN 3771	Chemical Engineering Thermodynamics 1	3
CHEN 3771 Recitation		1
CHEN 3786	Transport Phenomena 1	4
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
GER SS-1	Social Science Elective	3

Advanced Chemistry/Biology Elective <sup>2</sup>		3
CHEM 4860	Regulatory Aspects of Industrial Chemistry	1
CHEN 3787	Transport Phenomena 2/Unit Operations 1	3
CHEN 3785L	Transport Phenomena Laboratory	1
CHEN 4880	Chemical Reactor Design 1	3
CHEN 4880 Recitation		1

**Semester Hours 15**

**Year 4**

<b>Fall</b>		
GER SPA-1	Social & Personal Awareness Elective	3
GER AH-2	Arts and Humanities Elective: Ethics <sup>1</sup>	3
CHEN 3787L	Unit Operations Laboratory 1	1
CHEN 4815	Unit Operations 2	3
CHEN 4815 Recitation		1
CHEN 4887	Process and Plant Design 1	3
CHEN Elective-1	Chemical Engineering Elective <sup>4</sup>	3

**Semester Hours 17**

<b>Spring</b>		
GER SS-2	Social Science Elective	3
GER SPA-2	Social & Personal Awareness Elective	3
CHEN 4815L	Unit Operations Laboratory 2	1
CHEN 4882	Process Dynamics	3
CHEN 4888	Process and Plant Design 2	3
CHEN Elective-2	Chemical Engineering Elective <sup>4</sup>	3

**Semester Hours 16**

**Total Semester Hours 127**

Note: Transfer students from any two- or four-year academic program at other institutions or at this University who wish to pursue studies in chemical engineering should consult with the program coordinator for individual counseling to develop a program of study that fully uses their educational background and requires a minimum of time to satisfy the requirements for the degree of Bachelor of Engineering in chemical engineering.

COURSE	TITLE	S.H.
<b>1. Ethics Elective</b>		
		3

Select one of the following:		
PHIL 1561	Technology and Human Values	
PHIL 2625	Introduction to Professional Ethics	
PHIL 2626	Engineering Ethics	
PHIL 2628	Business Ethics	

**2. Advanced Chemistry/Biology Elective 3**

Select one course from the following:		
CHEN 4840	Biochemical Engineering Fundamentals (can be used as CHEN elective but not counted in both categories)	
CHEN 5805	Principles of Biomedical Engineering (can be used as CHEN elective but not counted in both categories)	
CHEN 5821	Fundamentals of Polymer Science (can be used as CHEN elective but not counted in both categories)	
CHEN 5845	Corrosion Engineering (can be used as CHEN elective but not counted in both categories)	

Upper Division Chemistry or Biology course  
Other courses may be used at the discretion of program coordinator

**3. Engineering Elective 3**

Select one course from the following:		
MECH 2606	Engineering Materials	
CHEN 2688	Energy Assessment	
ECEN 2632	Basic Circuit Theory 1	

CEEN 2601	Statics	
STEM 4890	STEM Internship (3 sh can be used as CHEN elective but not counted in both categories)	
MTEN 5868	Failure Analysis Using the SEM	
ISEN 3710	Engineering Statistics	
STAT 3717	Statistical Methods	
STAT 3743	Probability and Statistics	
Other courses may be used at the discretion of the program coordinator		
<b>4. Chemical Engineering Elective</b>		<b>6</b>
Select 2 courses from the following:		
CHEN 2688	Energy Assessment	
CHEN 4840	Biochemical Engineering Fundamentals	
CHEN 3726	Elementary Nuclear Reactor Engineering	
CHEN 4801	Chemical Engineering Projects	
CHEN 5800	Special Topics	
CHEN 5805	Principles of Biomedical Engineering	
CHEN 5811	Advanced Transport Phenomena	
CHEN 5820	Industrial Pollution Control	
CHEN 5821	Fundamentals of Polymer Science	
CHEN 5850	Industrial Processes	
CHEN 5854	Corrosion Engineering	
CHEN 5883	Mathematical Methods in Chemical Engineering	
CHEN 6981	Advanced Chemical Reaction Engineering	
Other courses may be used at the discretion of the program coordinator		

**ENGR 1500 Engineering Orientation 1 s.h.**

Introduction to engineering careers and the different engineering disciplines. Academic success strategies and university resources to support student success.

**ENGR 1550 Engineering Concepts 2 s.h.**

Introduction to the basic skills needed in engineering including engineering computing and an introduction to the engineering design process utilizing science, technology, engineering, and mathematics (STEM) fundamentals. One hour lecture and three hours laboratory per week.

**Prereq.:** Eligibility to take MATH 1513 or higher level math course.

**ENGR 1560 Engineering Computing 2 s.h.**

Computing skills required in engineering. Structured programming. Engineering problems and open ended design projects are solved in teams with results professionally presented. 1.5 hours lecture, 1.5 hours lab.

**Prereq.:** ENGR 1550, MATH 1571 or concurrent.

**CHEM 1515 General Chemistry 1 4 s.h.**

An introduction to the fundamental principles of chemistry, including measurement and calculation; chemical stoichiometry; the properties of gases; atomic and molecular structure; bonding; thermochemistry; and periodic properties. Intended for majors in the natural sciences and engineering. Three hours lecture, three hours lab-discussion.

**Prereq.:** CHEM 1501 or equivalent; MATH 1513 or equivalent.

**Concurrent:** CHEM 1515L; CHEM 1515R if major or repeating CHEM 1515.

**Gen Ed:** Natural Science.

**CHEM 1515L General Chemistry 1 Laboratory 0 s.h.**

General Chemistry 1 Laboratory.

**CHEM 1516 General Chemistry 2 4 s.h.**

A continuation of the study of the principles of chemistry, including solution properties; acids and bases; chemical equilibrium; thermodynamics; reaction kinetics; and electrochemistry. Intended for majors in the natural sciences and engineering. Three hours lecture, three hours lab-discussion.

**Prereq.:** "C" or better in CHEM 1515; Concurrent: CHEM 1516L; CHEM 1516R if major or repeating CHEM 1516.

**Gen Ed:** Natural Science.

**CHEM 1516L General Chemistry 2 Laboratory 0 s.h.**

General Chemistry 2 Laboratory.

**CHEM 3719 Organic Chemistry 1 4 s.h.**

Organic compounds, reactions and theories. Typical preparations and procedures of analysis. Three hours lecture, three hours lab-discussion.

**Prereq.:** "C" or better in CHEM 1516.

**CHEM 3719L Organic Chemistry 1 Laboratory 0 s.h.**

Organic Chemistry 1 Laboratory.

**CHEM 3720 Organic Chemistry 2 4 s.h.**

Organic compounds, reactions and theories. Typical preparations and procedures of analysis. Three hours lecture, three hours lab-discussion.

**Prereq.:** "C" or better in CHEM 3719.

**CHEM 3720L Organic Chemistry 2 Laboratory 0 s.h.**

Organic Chemistry 2 Laboratory.

**CHEM 3739 Physical Chemistry 1 4 s.h.**

Principles and applications of thermodynamics and kinetics to chemical systems. Three hours lecture, three hours lab-discussion.

**Prereq.:** "C" or better in CHEM 3720, PHYS 2611, PHYS 2611L, MATH 1572.

**CHEM 4860 Regulatory Aspects of Industrial Chemistry 1 s.h.**

Roles and responsibilities of industrial chemists. Industrial hygiene and safety. Industrial chemical processes, their waste products, their environmental effects, and the treatment of pollutants. Governmental regulations relating to waste disposal, product safety, occupational safety, resource conservation, environmental protection, and problems of awareness and compliance.

**Prereq.:** CHEM 3720.

**MATH 1571 Calculus 1 4 s.h.**

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

**Prereq.:** MATH 1513, minimum grade of "C", or MATH 1510 and MATH 1511, minimum grade of "C" in both courses, or at least Level 70 on the Mathematics Placement Test.

**Gen Ed:** Mathematics.

**MATH 1572 Calculus 2 4 s.h.**

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

**Prereq.:** MATH 1571.

**Gen Ed:** Mathematics.

**MATH 2673 Calculus 3 4 s.h.**

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

**Prereq.:** MATH 1572.

**MATH 3705 Differential Equations 3 s.h.**

Methods and theory of solving differential equations with applications. Existence, uniqueness. First order equations. Higher order linear equations. Introduction to partial differential equations and boundary value problems, including Laplace's equation.

**Prereq.:** MATH 2673.

**PHYS 2610 General Physics 1 4 s.h.**

A course in mechanics; the kinematics and dynamics of masses in translation and rotation; Newton's Laws; gravity; the conservation laws of energy and momentum; simple harmonic motion and introduction to wave motion and sound.

**Prereq.:** High school physics or PHYS 1501.

**Prereq. or concurrent:** MATH 1571.

**Gen Ed:** Natural Science.

**PHYS 2611 General Physics 2 4 s.h.**

Study of electric and magnetic fields and their effects; introduction to electric circuits; light as an electromagnetic wave; introduction to geometrical and physical optics.

**Prereq.:** PHYS 2610.

**Prereq. or concurrent:** MATH 1572.

**Gen Ed:** Natural Science.

**CHEN 2650 Computer Methods in Chemical Engineering 2 s.h.**

Application of computational software packages and spreadsheets to solve chemical engineering problems. Utilization of process simulation packages. Real-time computing applications in laboratory automation.

**Prereq.:** ENGR 1560, ENGR 1560H or consent of instructor.

**CHEN 2683 Chemical Engineering Principles 1 3 s.h.**

Engineering units and dimensions. Hydrostatics. Material balances for non-reacting and reacting processes. Ideal and non-ideal gas relationships. Ideal multi-phase equilibrium calculations.

**Prereq.:** MATH 1571 or MATH 1585H, CHEM 1515.

**CHEN 2684 Chemical Engineering Principles 2 3 s.h.**

Energy balances on reacting and non-reacting processes. Utilization of energy balances on multi-phase processes. Mass and energy balances on transient processes.

**Prereq.:** CHEN 2683.

**CHEN 3771 Chemical Engineering Thermodynamics 1 3 s.h.**

Development of the concepts and formalisms of thermodynamics and their applications to chemical engineering systems. Real and ideal behavior of single and multicomponent systems. Introduction to the thermodynamics of phase equilibria. Analysis and design of thermal systems. Additional topics include applications in transport phenomena and plant design.

**Prereq.:** MATH 2673 or MATH 2686H and CHEN 2684.

**CHEN 3785L Transport Phenomena Laboratory 1 s.h.**

Experimental studies of transport properties and momentum, energy and mass transfer using industrial type equipment. Correlation of data and comparison with theory. Oral presentations and preparation of technical reports. Three hours laboratory.

**Prereq.:** CHEN 3786 or concurrent.

**CHEN 3787 Transport Phenomena 2/Unit Operations 1 3 s.h.**

Mass transfer processes. Diffusional operations and separation processes with emphasis on evaporation, humidification and drying. Derivation of design equations from mass and energy balances, and application to equipment design. Solution of simultaneous differential equations of mass, momentum, and energy.

**Prereq.:** CHEN 3786.

**CHEN 3787L Unit Operations Laboratory 1 1 s.h.**

Experiments in absorption, cascade operations, reaction kinetics, mixing and other chemical engineering operations employing industrial and pilot plant size equipment and instrumentation. Treatment of experimental data, correlations and comparison with theory. Oral presentations and preparation of technical reports. Three hour laboratory.

**Prereq.:** CHEN 3787.

**CHEN 4815 Unit Operations 2 3 s.h.**

Gas absorption and desorption, interphase mass transfer processes, liquid extraction and leaching. Physical separation processes including filtration, settling, and size reduction. Derivation of the design equations for the above processes, and applications of the design equations to equipment design.

**Prereq.:** CHEN 3787.

**CHEN 4815L Unit Operations Laboratory 2 1 s.h.**

Experiments in absorption, cascade operations, reaction kinetics, mixing and other chemical engineering operations employing industrial and pilot plant size equipment and instrumentation. Treatment of experimental data, correlations and comparison with theory. Oral presentations and preparation of technical reports. Three hour laboratory.

**Prereq.:** CHEN 4815.

**CHEN 4880 Chemical Reactor Design 1 3 s.h.**

Chemical reaction equilibria. Theoretical developments and methods of interpreting experimental data pertaining to chemical kinetics. General design principles and construction features of reactors with application of these principles to the design of specific reactors.

**Prereq.:** CHEN 3771.

**CHEN 4882 Process Dynamics 3 s.h.**

Introduction to automatic control and control loop concepts. Laplace transform techniques. Linear open-loop and closed-loop systems. Root-locus and frequency response methods. Design of control systems.

**Prereq.:** CHEN 3786.

**CHEN 4887 Process and Plant Design 1 3 s.h.**

An examination of engineering economic analysis to include: cost estimation, profitability, optimum design, principles of fixed and operating costs, materials and site selection, and general and specialized design techniques.

**Prereq.:** CHEN 3787 and unrecalculated GPA of 2.0 or better in major courses.

**CHEN 4888 Process and Plant Design 2 3 s.h.**

The application of chemical engineering and cost principles to the component design and selection of process equipment. The application of chemical engineering and cost principles to the design of chemical plants and processes including societal aesthetic, environmental, and safety considerations.

**Prereq.:** CHEN 4887.

## Learning Outcomes

The curriculum is structured to achieve the following outcomes as prescribed by ABET:

- *Ability to apply knowledge of mathematics, science, and engineering*
- *Ability to design and conduct experiments as well as analyze and interpret data*
- *Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability*
- *Ability to function on multidisciplinary teams*
- *Ability to identify, formulate, and solve engineering problems*
- *Understanding of professional and ethical responsibility*
- *Ability to communicate effectively (orally and written)*
- *The broad education necessary to understand the impact of engineering solutions in a global economic, environmental, and societal context*
- *Recognition of the need for, and an ability to engage in, life-long learning*
- *Knowledge of contemporary issues*
- *Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice*

## Bachelor of Engineering in Civil Engineering

### Welcome from the Chair

Welcome to the homepage of Civil Engineering (CE) program at YSU. The CE program offers a Bachelor of Engineering (B.E.) degree in Civil Engineering through an ABET accredited curriculum designed for graduation in four years. Students receive a fundamental background in math and science to prepare for core courses in civil engineering. Our students not only learn from faculty lectures, they also engage in real world experience through undergraduate research and laboratory activities.

Civil engineers make the world a better place to live. With that philosophy in mind, we educate our students to undertake challenging engineering jobs and leadership roles in building our infrastructure. At the time of graduation, our students are well-prepared to enter the workforce in all five disciplines of civil engineering including structural, transportation, geotechnical, water



resources and environmental. Faculty members have the highest degree in their respective disciplines and some with professional engineering licensure that requires them to remain active in the profession through continuing education.

Our CE students are engaged in real world experience through participating in the ASCE Student Chapter activities. They design and build steel bridge and concrete canoe from scratch every year, and compete in the regional and national competitions. There are plenty of networking opportunities through active participation in the chapter activities, internships and co-ops.

For more information about the CE program at YSU, please contact:

Anwarul Islam, PhD, PE  
 Professor and Chair  
 Civil/Environmental & Chemical Engineering  
 2460 Moser Hall  
 One University Plaza  
 Youngstown, OH 44555  
 Tel: (330) 941-3026 ([http://catalog.ysu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/department-civil-environmental-chemical-engineering/civil-engineering-program/tel:\(330\)%20941-3026](http://catalog.ysu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/department-civil-environmental-chemical-engineering/civil-engineering-program/tel:(330)%20941-3026))  
 Fax: (330) 941-3265 ([http://catalog.ysu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/department-civil-environmental-chemical-engineering/civil-engineering-program/tel:\(330\)%20941-3265](http://catalog.ysu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/department-civil-environmental-chemical-engineering/civil-engineering-program/tel:(330)%20941-3265))  
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## Introduction

Civil engineers are responsible for planning, designing, and supervising construction of infrastructure, including buildings, bridges, highways, levees, dams, drinking water and wastewater treatment facilities, ports, railroads, airports, etc. The Civil Engineering undergraduate program has been continuously accredited by the Engineering Accreditation Commission of ABET since 1959. Students in the CE program receive a strong foundation in math, science, and the fundamentals of engineering as well as a broad background in all major areas of the civil engineering discipline.

## Mission

The mission of the Civil Engineering program is to:

- offer high-quality bachelor's degree in civil engineering that encompasses basic engineering sciences, as well as both traditional and emerging areas of the discipline;
- prepare graduates to adapt to global and domestic engineering challenges and changing industry practices;
- foster student-faculty relationships that enrich teaching and learning, develop scholarship, and encourage public service;
- maintain an academic structure characterized by integrity, and by respect for students, society, the environment, and the civil engineering profession;
- prepare graduates for, and facilitate, lifelong intellectual and professional development; and
- contribute to economic prosperity of the region, state, and nation by enhancing the size and competitiveness of the civil engineering workforce.

## Program Educational Objectives

The Civil Engineering program will provide graduates with the foundation of knowledge and skills necessary for productive and rewarding careers. The program prepares graduate to achieve the following educational objectives within a few years after graduation:

1. Perform essential functions within realistic constraints in their professional careers in civil engineering.

2. Demonstrate necessary communication, management, leadership, and interdisciplinary technical skills to excel in engineering and non-engineering sectors.
3. Continue their intellectual, social, and professional growth through lifelong learning.
4. Obtain professional engineering licensure.

## Student Outcomes

Students are expected to achieve the following outcomes at the time of their graduation from the Civil Engineering program at YSU:

1. an ability to apply knowledge of mathematics, science, and engineering
2. an ability to design and conduct experiments as well as to analyze and interpret data
3. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
4. an ability to function on multidisciplinary teams
5. an ability to identify, formulate, and solve engineering problems
6. an understanding of professional and ethical responsibility
7. an ability to communicate effectively
8. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
9. a recognition of the need for, and an ability to engage in life-long learning
10. a knowledge of contemporary issues
11. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

## Program Description and Accreditation

In the first two years of the program, students take coursework in the fundamentals of engineering, mathematics, and basic science in order to strengthen their technical background and develop intellectual maturity. They continue in a broad-based civil engineering program that helps them develop competence in a variety of areas within the discipline. Engineering topics include structural, geotechnical, transportation, environmental, and water resources engineering, as well as surveying and construction management. In the last two years, students choose elective courses in the various sub-disciplines of civil engineering based on their academic and career interests.

Instruction on the design process is fully integrated throughout the curriculum to foster the depth of understanding and self-confidence that students will need to think creatively and become productive engineers. The curriculum is based on the fundamental idea that students can best develop their creative skills through a series of progressively more demanding design experiences leading up to a major, comprehensive senior-level project.

Students majoring in civil engineering earn a B.E. degree. Graduates are prepared for advanced study at the master's and doctoral level in engineering, or for employment in the engineering profession.

The CE program offers the atmosphere of a small school in maintaining close contact between students and faculty. Senior professors serve as academic advisors and are engaged in all phases of instruction from freshman to graduate courses. All of the program's facilities are located within the modern Moser Hall. The program maintains laboratories for strength of materials, concrete testing, soil mechanics, surveying, environmental engineering, and fluid mechanics. A wide variety of equipment is available to support both teaching and research activities.

The Civil Engineering BE program has been accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

- The last campus visit by ABET was on October 27 - 29, 2013.
- The next campus visit by ABET will be in the 2019 - 2020 academic year.

## Civil Engineering Faculty

### Anwarul Islam, PhD, PE

Professor, Structural Engineering  
structural health monitoring using wireless sensor networks  
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(330) 941-3026 ([http://catalog.yzu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/department-civil-environmental-chemical-engineering/civil-engineering-program/tel:\(330\)%20941-3026](http://catalog.yzu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/department-civil-environmental-chemical-engineering/civil-engineering-program/tel:(330)%20941-3026))  
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### Shakir Husain, PhD, PE

Professor, Transportation Engineering  
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### Richard Deschenes, Jr, PhD

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Alkali silica reaction  
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### Jai Jung, PhD

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### Suresh Sharma, PhD

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Watershed modeling  
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ssharma06@ysu.edu

### Tony Vercellino, PhD, PE

Assistant Professor, Environmental Engineering  
Moser 2430  
(330) 941-1740 ([http://catalog.yzu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/department-civil-environmental-chemical-engineering/civil-engineering-program/tel:\(330\)%20941-1740](http://catalog.yzu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/department-civil-environmental-chemical-engineering/civil-engineering-program/tel:(330)%20941-1740))  
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## Civil Engineering Annual Enrollment and Graduation Data

Term Enrollment

Fall 2013 78

Fall 2014 79

Fall 2015 78

Fall 2016 102

Fall 2017 103

Academic Year Degrees Awarded

2013-2014 28

2014-2015 27

2015-2016 19

2016-2017 22

For more information, contact Professor Anwarul Islam, Program Coordinator.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
MATH 1571	Calculus 1	4
GER SS-1: Social Science Elective		3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
ENGR 1560	Engineering Computing	2
MATH 1572	Calculus 2	4
CMST 1545	Communication Foundations	3
GER AH-1: Arts & Humanities Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
MATH 2673	Calculus 3	4
CEEN 2610 & 2610L	Surveying and Surveying Laboratory	4
CEEN 2601	Statics	3
PHYS 2610	General Physics 1	4
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MATH 3705	Differential Equations	3
CEEN 2602 & 2602L	Strength of Materials and Strength of Materials Lab	4
GEOL 2611	Geology for Engineers	3
CEEN 2660	Computer Aided Design and Drafting	2
CHEM 1516 & 1516L or PHYS 2611	General Chemistry 2 or General Physics 2	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
CEEN 3720	Transportation Engineering	3
CEEN 3716 & 3716L	Fluid Mechanics and Fluid Mechanics Lab	4

CEEN 3749 & 3749L	Structural Analysis 1 and Structural Analysis 1 Lab	4
CEEN 3736	Fundamentals of Environmental Engineering	3
ISEN 3710	Engineering Statistics	3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
CEEN 3717	Hydraulic Design	4
CEEN 4881 & 4881L	Geotechnical Engineering and Geotechnical Lab	4
CEEN Elective-1: CE Design Elective		3
GER SS-2: Social Science Elective		3
GER SPA-1: Social & Personal Awareness Elective		3
<b>Semester Hours</b>		<b>17</b>
<b>Year 4</b>		
<b>Fall</b>		
CEEN 5855	Reinforced Concrete Design	3
CEEN 5856	Steel Design	3
CEEN Elective-2: CE Elective		3
CEEN 4812	Construction Management	3
ISEN 3724	Engineering Economy	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CEEN 4863	Integrated Design Project	3
MECH 2641	Dynamics	3
CEEN Elective-3: CE Elective. May substitute with approval of CE Program Coordinator.		3
GER AH-2: Arts & Humanities Elective. Must take either PHIL 2625 (Prof. Ethics) or PHIL 2626 (Eng. Ethics).		3
GER SPA-2: Social & Personal Awareness Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>127</b>

## Cooperative Education/Internship in Civil Engineering

The Civil Engineering program encourages its students to participate in co-ops and internships. Students should register with the STEM Professional Practice Office in order to participate.

### CEEN 2601 Statics 3 s.h.

Principles of engineering mechanics as applied to statics with vector applications to forces and moments; centroid and center of gravity; equilibrium; friction; moments of inertia: relationship between loads, stress and strain in tension, compression, torsion and bending.

**Prereq.:** MATH 1572 and PHYS 2610 or concurrent.

### CEEN 2602 Strength of Materials 3 s.h.

Relationships between loads, shear and bending moments in beams; combined stresses in beams; indeterminate beam analysis; virtual load; connections; columns.

**Prereq.:** CEEN 2601.

### CEEN 2602L Strength of Materials Lab 1 s.h.

Experimental verification of strength of materials; testing: tension, torsion, non-destructive tests of steel; concrete compression and Poisson ration, wood tests.

**Prereq.:** Concurrent with: CEEN 2602.

### CEEN 2610 Surveying 3 s.h.

The theory of surveying and the use of instruments. Problems in leveling, traversing, and topography. Introduction to circular and vertical curves.

**Prereq.:** MATH 1513 or equivalent.

### CEEN 2610L Surveying Laboratory 1 s.h.

Field surveying principles and techniques. Uses of transit and level are stressed. Three laboratory hours per week.

**Prereq.:** Concurrent with: CEEN 2610.

### CEEN 2660 Computer Aided Design and Drafting 2 s.h.

This course is designed for students who wish to be involved with the civil engineering design fields and for those interested in computer aided design and drafting. Students will be introduced to both traditional and computer aided design and drafting skills. The aim of this course is to introduce students to basic information, skills, and concepts related to drafting and design. Special attention is given to: sketching, measurement, room planning, multi-view drawing, auxiliary views, working drawings, sectional views, orthographic drawings along with AutoCAD tools and commands. The course includes 1 s.h. lecture and 1 s.h. lab.

### CEEN 3711 Technology and Society 3 s.h.

A critical exploration of how societal needs affect the creation of technologies and how technology affects society. The course is interdisciplinary in nature and presents various approaches to examining the complex interaction between humans and their tools. Topics include: (1) technology in human history; (2) society, science, and technology development; (3) technology and social change; (4) technology, knowledge, and power; (5) technology, population, and the environment. Listed also as SOC 3789.

**Prereq.:** Junior standing or consent of instructor.

### CEEN 3716 Fluid Mechanics 3 s.h.

Proportions of fluids, fluid statics, kinematics; Bernoulli equation; fluid momentum; laminar and turbulent flow through simple pipes; boundary layers; dimensional analysis and similitude.

**Prereq.:** CEEN 2602.

### CEEN 3716L Fluid Mechanics Lab 1 s.h.

Experimental verification of the principles of fluid mechanics as applied to incompressible fluid. Three hours laboratory per week. Must be taken concurrently with CEEN 3716.

**Prereq.:** ENGR 1560, ENGR 1560H.

### CEEN 3717 Hydraulic Design 4 s.h.

Analysis of flow in complex pipe systems; pumps; open channel flow; culverts; spillways; storm water drainage. Three hours lecture and three hours of computational laboratory per week.

**Prereq.:** CEEN 2610 and CEEN 3716.

### CEEN 3720 Transportation Engineering 3 s.h.

Introductory survey of transportation topics including transportation systems, vehicular operation and control, and transportation planning techniques; introduction to design of highways, airports, and railroads; and traffic engineering.

**Prereq.:** CEEN 2610.

### CEEN 3736 Fundamentals of Environmental Engineering 3 s.h.

Causes and effects of water, air and land pollution; measurements of environmental quality; environmental regulations; introduction to methods of pollution control.

**Prereq.:** CHEM 1515, ENGR 1560, ENGR 1560H, or consent of instructor.

### CEEN 3749 Structural Analysis 1 3 s.h.

The determination of shears, moments, and stresses in statically determinate beams, frames, and trusses. Consideration of dead, live, moving, and wind loads. Elastic deflections of simple structures. Introduction to the analysis of statically indeterminate structures using numerical and energy methods.

**Prereq.:** CEEN 2602.

### CEEN 3749L Structural Analysis 1 Lab 1 s.h.

Introduction to stiffness-based analysis of determinate and indeterminate structures. Computer analysis of various structural systems, including plane and space trusses, continuous beams, plane and space frames, plates. P-delta stability analysis of frames. Three hours computational lab per week.

**Prereq.:** CEEN 2602; concurrent with CEEN 3749.

**CEEN 3751 Water Quality Analysis 3 s.h.**

Introduction to physical, chemical, and biological measurements of water quality. Sample collection and laboratory analysis of natural waters, drinking water, and wastewater. Interpretation of environmental data. Two hours lecture and three hours laboratory per week. Identical to ENST 3751.

**Prereq.:** CEEN 3736 or ENST 2600; CHEM 1515.

**CEEN 3751L Water Quality Analysis Lab 0 s.h.**

Laboratory experience in the analysis of natural waters, drinking water and wastewater. Emphasizes procedures for the collection and interpretation of data on current environmental problems. Three hours laboratory per week. Must be taken concurrently with CEEN 3751.

**CEEN 4800 Special Topics 3 s.h.**

Special topics and new developments in Civil Engineering. Subject matter, credit hours, and special prerequisites to be announced in advance of each offering. May be repeated to a maximum of 6 s.h.

**Prereq.:** Senior standing or consent of instructor.

**CEEN 4812 Construction Management 3 s.h.**

Fundamentals of construction management: contracts, bonding, estimating, organization, finance; cost and productivity of equipment, material, and labor; and project planning and scheduling.

**Prereq.:** CEEN 3717 or CEEN 4881.

**CEEN 4835 Highway Design 3 s.h.**

Methods of highway route location; design methods and standards for highways, intersections, freeways, and interchanges. Includes extensive use of computer-aided design.

**Prereq.:** CEEN 3720.

**CEEN 4863 Integrated Design Project 3 s.h.**

Students will be required to complete a meaningful design experience that focuses attention on professional practice and is predicated on the accumulated background of curriculum components. Two hours of lecture and three hours of laboratory a week.

**Prereq.:** CEEN 5855 and GPA of 2.0 or better.

**Gen Ed:** Capstone.

**CEEN 4879 Civil Engineering Analysis 3 s.h.**

Application of mathematical and numerical methods to the systematic analysis and development of problems in the field of Civil Engineering.

**Prereq.:** CEEN 3749.

**CEEN 4881 Geotechnical Engineering 3 s.h.**

Properties of soil, classification, capillarity, seepage, permeability, stresses, consolidation, shear strength; analysis and design of foundation structures, retaining walls, piles, drilled piers, sheet pile walls, special footings, stability.

**Prereq.:** MATH 2673; CEEN 3749.

**CEEN 4881L Geotechnical Lab 1 s.h.**

Typical soil testing procedures and physical testing of soil samples.

**Prereq.:** Concurrent with: CEEN 4881.

**CEEN 5820 Pavement Material and Design 3 s.h.**

Design methods for flexible, rigid and other wheel-supporting pavements to include investigation, testing and preparation of subgrade, base course and pavement materials, design of various pavement mixtures, stresses in pavements, pavement design, and strengthening existing pavements.

**Prereq.:** CEEN 3720 and CEEN 4881.

**CEEN 5829 Civil Engineering Materials - Concrete 3 s.h.**

A course designed to broaden the student's understanding of Portland Cement Concrete as a construction material. Topics include the study of cement, hydration of cement, aggregates, admixtures for concrete, mix design handling and placing, curing and properties of Portland Cement Concrete. Testing of Concrete, quality control and special concretes are also included. A library research paper on a concrete-related topic of the student's choice is required.

**Prereq.:** CEEN 3749 or permission of instructor.

**CEEN 5832 Natural Systems Engineering 3 s.h.**

Introduction to the features, functions and values of natural aquatic systems, and engineering approaches to analysis and restoration design. Focus on wetlands and streams. Topics include regulations, wetland delineation, constructed wetland design, basic stream geomorphology, and stream restoration design.

**Prereq.:** CEEN 3736 or permission of instructor.

**CEEN 5837 Environmental Engineering Design 3 s.h.**

Theory and design of unit operations and processes for treatment of drinking water and municipal wastewater.

**Prereq.:** CEEN 3736.

**CEEN 5849 Structural Analysis 2 3 s.h.**

Analysis of statically indeterminate beams, trusses, bents and multistory frames, utilizing concepts of strain energy, virtual work, slope-deflection, and moment distribution. Introduction to matrix methods of analysis using force and displacement methods.

**Prereq.:** CEEN 3749.

**CEEN 5855 Reinforced Concrete Design 3 s.h.**

An introduction to the behavior, analysis, and design of reinforced concrete members. Included are singly and doubly reinforced beams, tee-beams, slabs, short and long columns.

**Prereq.:** CEEN 3749.

**CEEN 5856 Steel Design 3 s.h.**

An introduction to the behavior and design of steel structures. Included is the design of rolled and built-up tension members, beams, columns, beam-columns, welded and bolted connections.

**Prereq.:** CEEN 3749.

**CEEN 5877 Systems Engineering and Project Management 3 s.h.**

Systems approach to engineering design; non-linear models; linear programming; dynamic programming; network analysis; project management.

**Prereq.:** MATH 3705.

**CEEN 5882 Foundation Engineering 3 s.h.**

Analysis and design of various foundations, including abutments, piers, piles, and footings; slope stability of embankments.

**Prereq.:** CEEN 4881 and CEEN 5855.

**CEEN 5883 Bridge Engineering 3 s.h.**

Analysis and design of concrete and steel bridges; specifications and code requirements; design detailing; effects of natural and man-made hazards on bridges; implications of bridge failures.

**Prereq.:** CEEN 5855 and CEEN 5856.

**CEEN 5884 Solid and Hazardous Waste Management 3 s.h.**

Sources, characteristics, handling and disposal options for solid waste and hazardous waste; topics include regulations, health effects, waste minimization, collection systems, landfill design, treatment and processing methods, and site assessment.

**Prereq.:** CEEN 3736.

## Student Outcomes

Students in the Civil Engineering undergraduate program at YSU are expected to achieve the following outcomes published by ABET:

1. an ability to apply knowledge of mathematics, science, and engineering
2. an ability to design and conduct experiments as well as to analyze and interpret data
3. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
4. an ability to function on multidisciplinary teams
5. an ability to identify, formulate, and solve engineering problems
6. an understanding of professional and ethical responsibility
7. an ability to communicate effectively
8. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context

9. a recognition of the need for, and an ability to engage in life-long learning
10. a knowledge of contemporary issues
11. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

## Department of Computer Science and Information Systems

(330) 941-3134

Room 339 Meshel Hall

CSIS@ysu.edu

Welcome to Computer Science and Information Systems. The department is committed to high quality education in the classroom, in student research, and in internships with our business partners. The department offers a wide range of programs to meet student needs:

- The Computer Science program is offered as the Bachelor of Science degree and is a traditional, analytical program which involves extensive computer programming and support courses in mathematics.
- The Information Technology program is also offered as the Associate of Applied Science and the Bachelor of Science in Applied Science. Coursework emphasizes applying high-end computer applications and system management.
- The Computer Information Systems program is offered as the Associate of Applied Science and the Bachelor of Science in Applied Science. Coursework involves extensive programming with an emphasis on applied business programming.
- The Master's in Computing and Information Systems offers advanced education in several computing areas.

### Mission Statement

- The primary mission of the Computer Science and Information Systems Department is to design a broad range of current Computer Science, Computer Information Systems, and Information Technology experiences that include multidisciplinary activities and community interaction, using current computing technology and supported by strong written, critical thinking, and verbal communication skills to enable students to function effectively in a technology-based society.
- The Department is an important academic resource for computing information, consultation, and computer-related instruction for the campus and the community. Partnerships are developed with local industry and school systems to benefit the economic health of the Mahoning Valley.
- The Department supports and encourages research, industry partnerships, and other activities leading to the development of new technologies, new courses and curriculum, and new classroom methods and techniques.
- The Department recognizes that computing has become an increasingly crucial aspect of all disciplines of knowledge, and supports interdisciplinary programs and forms symbiotic relationships with other disciplines in areas of greatest benefit to students.
- The Department supports the social growth of students, promoting ethical decision making, the development of secure and reliable computing systems, and an awareness of the role of computing in a global environment. The Department also constantly strives for diversity in terms of groups underrepresented in computing, particularly women.

Curriculum sheets and suggested schedules for each program may be obtained from the department office in Meshel Hall or on the department's website.

### Chair

Coskun Bayrak, Ph.D., Professor, Chair

### Professor

Abdurrahman Arslanyilmaz, Ph.D., Associate Professor

Robert W. Kramer, Ph.D., Associate Professor

Alina Lazar, Ph.D., Professor

Kriss A. Schueller, Ph.D., Professor

Bonita Sharif, Ph.D., Associate Professor

John R. Sullins, Ph.D., Associate Professor

Feng Yu, Ph.D., Assistant Professor

Yong Zhang, Ph.D., Associate Professor

### Instructor

Robert Gilliland, M.C.I.S., Instructor

## Majors

- BS in Computer Science (p. 503)
- AAS in Computer Information Systems (p. 497)
- BSAS in Computer Information Systems (p. 499)
- AAS in Information Technology (p. 498)
- BSAS in Information Technology (p. 501)

## Minors

- Minor in Computer Databases (p. 504)
- Minor in Computer Networking (p. 504)
- Minor in Electronic Commerce Technology (p. 504)
- Minor in Information Systems Programming (p. 505)
- Minor in Integrated Technologies (p. 505)
- Minor in Multimedia and Web Design (p. 505)
- Minor in Object-Oriented Programming (p. 505)
- Minor in Computer Science (p. 504)

## Computer Information Systems

### CIS 3714 Assembly Language and Architecture 3 s.h.

Fundamentals of computer architecture and organization. Forms of data representation. Assembly language and machine language programming. The assembly process. Methods and protocols for subroutine linkage.

**Prereq.:** CSIS 2605 or CSIS 2610.

### CIS 3718 Operating Systems Concepts 3 s.h.

Concepts of computer operating systems, including memory allocation, job scheduling, process communication, and input/output processing. Examinations of operating systems on several platforms.

**Prereq.:** CSIS 2605 or CSIS 2610.

### CIS 3735 UNIX Environment 3 s.h.

Use of the UNIX operating system or similar systems, including file management utilities, editors, compilers, and communication utilities. A comprehensive examination of programming in various shells such as Bourne, C, and Korn.

**Prereq.:** CSIS 2605 or CSIS 2610.

### CIS 3741 Business Programming Project 4 s.h.

This course provides an in-depth study of business programming. It includes the mastery of a high-level language suitable for business programming, such as COBOL, and the development of a large multi-step business application project. Three hours lecture, two hours lab.

**Prereq.:** CSIS 2605 or CSIS 2610.

**CIS 4810 Special Topics 2-4 s.h.**

Study of special topics in computer information systems. Subject matter and credit hours will be announced in advance. May be repeated multiple times if topic is different.

**Prereq.:** At least 3 s.h. of upper-division departmental courses, and permission of chair.

**CIS 4820 Computer Center Operations 3 s.h.**

The organization of a computer center, with emphasis on features and selection criteria of communication equipment, including mainframe, minicomputer, and microcomputer systems.

**Prereq.:** CIS 3741 or INFO 2663, 3 s.h. of upper-division departmental courses.

**CIS 4840 Business System Analysis and Design 4 s.h.**

Development of communication and written skills for the analysis and design of business systems. Utilization of project management techniques for design, development, and maintenance of a departmental level system.

**Prereq.:** CSIS 3722, CSIS 3723, and 3 additional s.h. of upper-division departmental courses.

**Gen Ed:** Capstone.

## Computer Science and Information Systems

**CSIS 1500 Computer Literacy 3 s.h.**

A survey of computer concepts and applications. Network access and electronic mail. Emphasis on software applications packages available for microcomputers, including word processing. This course is meant for students with minimal or no background in computers. Credit will not be given for both CSIS 1500 and for either CSIS 1514, CSIS 1525, or CSIS 1590.

**CSIS 1510 Global Electronic Information Resources 3 s.h.**

A survey of concepts and tools relating to communicating and gathering information on the Internet. Electronic mail, newsgroups, on-line services, and the World Wide Web. Using Internet and web search tools to locate sites, and to retrieve and evaluate information. Creating home pages on the World Wide Web. Basic telecommunication, hypermedia, and ethical concepts.

**Prereq.:** CSIS 1500.

**CSIS 1514 Business Computer Systems 3 s.h.**

Hands-on business software, with emphasis on operating systems, word processing, database and spreadsheet applications. This course is not designed for beginning computer users. Beginning computer users should take CSIS 1500: Computer Literacy before taking this course.

**CSIS 1525 Survey of Modern Operating Systems 3 s.h.**

An introduction to the common operating systems currently used with computers, such as DOS, Microsoft Windows, UNIX, and X-windows. Topics include setting up the user's work environment, file manipulation, and other commands. Not applicable to the CIS or CSCI major. This course is not designed for beginning computer users. Beginning computer users should take CSIS 1500: Computer Literacy before taking this course.

**CSIS 1550 Survey of Language Topics 3 s.h.**

Introductory language course with emphasis on writing structured programs in a particular computer language. The language topic and special prerequisites are announced in advance. Not applicable to the CIS or CSCI major.

**Prereq.:** Permission of chair.

**CSIS 1560 Basic Programming 3 s.h.**

An introduction to computer programming using a visual object-oriented programming tool. Topics include control structures, loops, functions, methods, recursion, array processing, and events. Students will learn to design and implement virtual worlds.

**CSIS 1570 Web Systems and Technologies 3 s.h.**

Concepts of web-based applications including related software, interfaces and digital media. Foundations of web-site development including design, implementation, and integration. Multimedia integration and security and accessibility issues.

**Prereq.:** MATH 1505 or MATH 1507 or Math Placement Level 35.

**CSIS 1580 Technical Presentation and Communication 3 s.h.**

Tools and techniques for presentation of information in a computer-based environment. Introduction to slide making, graphics, and multimedia software. Methods for gathering information and determining requirements, and for designing and critiquing presentations.

**Prereq.:** CSIS 1500.

**CSIS 1590 Survey of Computer Science and Information Systems 3 s.h.**

Concepts, theory, and contemporary issues underlying the computing sciences. Introduction to computer applications, the YSU computing environment, the use of communication and information networks, and basic problem solving techniques using computers. This course is not designed for beginning computer users. Beginning computer users should take CSIS 1514: Business Computer Systems before taking this course.

**Prereq.:** or concurrent MATH 1505 or MATH 1507 or at least Level 30 on the Mathematics Placement Test.

**CSIS 1595 Fundamentals of Programming and Problem- Solving 1 3 s.h.**

Introduction to concepts, principles, and skills of programming using a high-level programming language. Topics include programming language characteristics, an integrated development environment, algorithms and pseudocode, variables, operators, conditional statements, looping statements, functions, arrays, testing, debugging, documentation and program style. Two hours lecture and two hours lab. Credit will not be given for both CSIS 1595 and CSIS 2610.

**Prereq.:** CSIS 1590 or MATH 1507 or Level 40 on Math Placement Test.

**CSIS 2602 Programming in C 3 s.h.**

Programming concepts and techniques, with emphasis on scientific and engineering applications. An accelerated survey of the C programming language and an introduction to the UNIX programming environment. Not applicable to the CIS or CSCI major.

**Prereq.:** CSIS 1500 and MATH 1513 or Math Placement Level 5 or 50 or higher.

**CSIS 2605 Fundamentals of Programming and Problem- Solving 2 3 s.h.**

Theory and application of programming principles, data and information structures, simple linked lists, searching, and sorting, software development life cycle. Practice using these concepts in an object-oriented programming language. Two hours lecture and two hours lab. Credit will not be given for both CSIS 2605 and CSIS 2610.

**Prereq.:** CSIS 1595.

**Prereq. or concurrent:** MATH 1511 or MATH 1513 or MATH 1552 or Level 50 on Math Placement Test.

**CSIS 2610 Programming and Problem-Solving 4 s.h.**

Problem solving methods and algorithms using a high-level programming language. Designing, coding, debugging, and documenting programs using techniques of good programming style. Three hours lecture, two hours lab. Credit will not be given for both CSIS 2605 and CSIS 2610.

**Prereq.:** MATH 1511 or MATH 1513 or MATH 1552 or Level 50 on Math Placement Test.

**CSIS 2615 Information Structures for Information Technology 3 s.h.**

Study and application of information structure concepts such as lists, trees, multilevel lists, files, and data-method integration. Practice using these concepts in a 3D animation environment using an object-oriented programming language in the background. Emphasis on algorithm design, object utilization, and storyboarding.

**Prereq.:** CSIS 1590, and either CSIS 2605 or CSIS 2610.

**CSIS 2620 System Configuration and Maintenance 3 s.h.**

Theory and practice of installing and maintaining hardware and software for complex systems. Installation of application software, with emphasis on Windows and Mac applications. Essential DOS utilities: formatting, data recovery, protecting data. Printing problems, Windows environment problems, and problems with booting the machine. Small laboratory management.

**Prereq.:** CSIS 1590.

**CSIS 2655 Personal Cyber Security 3 s.h.**

PC system security including data assurance, standards and legal issues, and methods and procedures for guarding against potential software attack. Not applicable to the CIS, CSCI, or INFO major. Credit will not be given for 2655 if a student already received credit for CSIS 3755 or its equivalent.

**CSIS 2660 Foundations of Electronic Commerce 3 s.h.**

Framework of electronic commerce, including e-commerce architecture, infrastructure, technologies, tools, and strategies. Topics include security, environmental, and implementation issues. Includes web site analysis, hardware/software issues, mini-cases, and introduction to site development.

**Prereq.:** CSIS 1590.

**CSIS 2699 Computer Science and Information Systems Internship 1-3 s.h.**

Classroom theory applied to on-the-job professional experience related to the student's major. Work for a minimum of 12 hours per week at an approved site, complete a related project, and attend seminars. May be repeated once with the permission of coordinator.

**Prereq.:** Sophomore in good standing and permission of internship coordinator.

**CSIS 3700 Data Structures and Objects 4 s.h.**

Program design, style and expression, testing and debugging for larger programs. Introductory concepts of object oriented programming, including classes, methods, encapsulation, and abstract data types. Theory and application of data structures, including linked structures, trees, networks, and graphs. Credit will not be given for both CSIS 2617 and CSIS 3700. Three hours lecture, two hours lab.

**Prereq.:** CSIS 2605 or CSIS 2610.

**CSIS 3701 Advanced Object-oriented Programming 3 s.h.**

Object-oriented design and programming, including classes, inheritance, polymorphism, and exception handling. Introductory software engineering techniques for program development, specification, documentation, verification, and user interface design.

**Prereq.:** CSIS 2605 or CSIS 2610.

**CSIS 3722 Development of Databases 3 s.h.**

The basic structure, design, development, implementation, and modification of databases for use in management of information systems.

**Prereq.:** CSIS 1590.

**CSIS 3723 Networking Concepts and Administration 3 s.h.**

Overview of electronic communications concepts and technologies, with emphasis on Local Area Networks. Network topologies, design, administration, installed applications, and performance monitoring. Privacy, ethical and legal concerns.

**Prereq.:** CSIS 2605 or CSIS 2610.

**CSIS 3726 Visual/Object-Oriented Programming 4 s.h.**

Use of one or more visual programming languages in conjunction with the concepts of object-oriented programming. Development of interactive programs using a graphical user interface. Database and Internet programming. Three hours lecture, two hours lab.

**Prereq.:** CSIS 2605 or CSIS 2610.

**CSIS 3730 Computer Graphics 3 s.h.**

Techniques of computer raster graphics, including scan conversion, two- and three- dimensional clipping and windowing, transformations, and viewing in 3D. Algorithms and more advanced topics.

**Prereq.:** CSIS 3700 and MATH 1572.

**CSIS 3731 Human-Computer Interaction 3 s.h.**

Concepts of human-computer interaction, including human factors, performance analysis, cognitive processing, usability studies, environment, training, user and task analysis, ergonomics, and accessibility standards.

**Prereq.:** CSIS 2605 or CSIS 2610 or INFO 2663.

**CSIS 3732 Intranet Database Implementation 3 s.h.**

Design and implementation of 3NF PC-based databases uploaded to intranet Web sites. Remote database design, development, and updating using SQL within an application development software package. Validating database integrity. Includes site development and projects.

**Prereq.:** CSIS 3722 and either CSIS 2605 or CSIS 2610.

**CSIS 3740 Computer Organization 4 s.h.**

Basic hardware components, structure, and implementation of computer systems. Assembly language and instruction set architecture. Combinational and sequential digital logic. CPU and control unit design.

**Prereq.:** CSIS 2605 or CSIS 2610.

**CSIS 3755 Information Assurance 3 s.h.**

Confidentiality, integrity, and authenticity of information. Methods of controlling access to electronic data, enforcing security policies, protecting against malicious attacks (including web site attacks), intrusion detection, and disaster recovery.

**Prereq.:** CSIS 1590.

**CSIS 3756 Security Design 3 s.h.**

Operating system security concepts, techniques and applications including MS Windows and LINUX/UNIX platforms. Includes a hands-on design project.

**Prereq.:** Either CSCI 5806 or CSIS 3755 and either CSIS 1525 or CIS 3718.

**CSIS 3757 Computer Forensics 3 s.h.**

Professional computer forensics, including methods and investigative techniques for the discovery and recovery of digital images and information at all levels, from PCs to large information systems. Chain of evidence and investigative techniques for cybercrime detection.

**Prereq.:** CSIS 3755.

**CSIS 3760 Electronic Commerce Programming 3 s.h.**

Programming for client/server systems related to electronic commerce, including server-side languages such as Perl and Client-side languages such as JavaScript. Topics include form validation and parsing, database access and manipulation, and design, networking, and security issues.

**Prereq.:** CSIS 2605 or CSIS 2610.

**CSIS 3761 Electronic Commerce Strategies 3 s.h.**

Advanced concepts for development and maintenance of electronic commerce web sites. Topics include e-commerce paradigms, software and programming, and infrastructure issues. Site design, evaluation, deployment, and administration issues, including prototyping and SDLC issues. Building web-based training components. Includes IT project.

**Prereq.:** CSIS 2660 and INFO 2663.

**CSIS 3782 Cisco Networking Academy 1 4 s.h.**

Current and emerging networking concepts and technology. Topics include networking standards, terminology, and protocols; LANs and WANs, the OSI and TCP/IP models, network topology and design, physical and logical addressing, subnet masking, router configuration and programming. Includes structured cabling project. Three hours lecture and three hours lab. By permit only.

**Prereq.:** CSIS 1590, and either CSIS 2605 or CSIS 2610.

**CSIS 3783 Cisco Networking Academy 2 4 s.h.**

Advanced networking concepts and technology. Topics include LAN switching, VLAN design and implementation, IGRP, Access Control Lists, Novell IPX, Token Ring, Network Management, WAN design, WAN protocols (PPP, Frame Relay, ISDN), CCNA certification review. LAN design project. Three hours lecture and three hours lab.

**Prereq.:** CSIS 3782.

**CSIS 3790 Undergraduate Research 1-3 s.h.**

A research experience under the supervision of a faculty mentor. Course may be repeated for a total of up to 6 semester hours.

**Prereq.:** CSIS 2605 or CSIS 2610, and faculty approval.

**CSIS 4804 Programming in Operations Research Applications 3 s.h.**

Basic operations research techniques and programming. Linear programming, queuing, mathematical modeling, and network analysis.

**Prereq.:** CIS 2610 and 3 semester hours of upper-division departmental courses.

**CSIS 4819 Parallel and Distributed Computing 3 s.h.**

Survey of current development of parallel processing with emphasis on parallel programming. Topics include parallel architecture, interconnection networks for inter-processor communication, parallel sorting/searching algorithms, parallel constructs for parallel programming paradigms, and implementation of the algorithms in a parallel programming language.

**Prereq.:** CSIS 3700 and CSIS 3740.

**CSIS 4822 Database Applications 3 s.h.**

Design and development of applications using database languages.

**Prereq.:** CSIS 3722.

**CSIS 4823 Data Communications Networking 3 s.h.**

Study of present methods for design and evaluation of information networks, LAN and WAN. Includes queuing, routing, security, reliability, error detection and correction, and distributed processing.

**Prereq.:** CSIS 3723.

**CSIS 4831 Virtual Reality Systems 3 s.h.**

An investigation into the use, design, implementation, and evaluation of virtual reality interfaces. Experiences with VR systems using both 2D projections and stereoscopic display and other systems. Students work in multidisciplinary groups.

**Prereq.:** CSIS 3730.

**CSIS 4870 Web Communications Capstone 3 s.h.**

A project course requiring the integration of website development tools and techniques, database development, effective writing for the web, and audience analysis, to produce a website of substantial depth and breadth. Oral and written presentations of final project. Listed also as ENGL 4870.

**Prereq.:** Senior standing and permission of instructor.

**Gen Ed:** Capstone.

**CSIS 4878 Mobile Application Development 3 s.h.**

Principles of designing and developing cross-platform mobile applications. Techniques for designing, developing, testing, packaging, and publishing cross-platform mobile apps. Client- and server-side programming theories and practices regarding mobile app development.

**Prereq.:** CSIS 3722, INFO 3776, and CSIS 3701.

**CSIS 4893 Computer Science and Information Systems Advanced Internship 2-4 s.h.**

An industrial/academic experience in information systems/technology. Employment for 15 to 20 hours per week. May be repeated once with the permission of internship supervisor.

**Prereq.:** 16 s.h. of department courses (at least 3 hours upper-division) and permission of department internship supervisor.

**CSIS 5824 Applied Artificial Intelligence 3 s.h.**

Study of artificial intelligence software related to decision making. Topics may include robotic control, expert systems, automated knowledge acquisition, or logic programming.

**Prereq.:** CSIS 3700 and 3 s.h. of upper-division departmental courses, or CSIS 6901.

**CSIS 5828 Computer Network Security 3 s.h.**

Overview of security issues that arise from computer networks, including the spectrum of security activities, methods, methodologies, and procedures. Intrusion detection, firewalls, threats and vulnerabilities, denial of service attacks, viruses and worms, encryption, and forensics.

**Prereq.:** CSIS 3723 or equivalent.

**CSIS 5837 Artificial Intelligence in Game Design 3 s.h.**

Artificial intelligence techniques for designing and programming intelligent non-player characters for a variety of different types of game genres. Finite and fuzzy state machines, terrain analysis and path planning, board games, language understanding, and learning.

**Prereq.:** CSIS 3700, CSIS 3726 or CSCI 6901.

**CSIS 5838 Graphics and Animation for Gaming 3 s.h.**

Design and implementation of animated characters in 3D computer games. Surface creation and effects; skeletal and facial rigging; motion and animation; basic game physics. Use of 3D animation software and scripting languages for game engine programming.

**Prereq.:** CSIS 2605 or CSIS 2610 and at least 3 s.h. of upper division CSIS courses, or CSCI 6901.

**CSIS 5883 Remote Access and Multilayer Switched Networks 4 s.h.**

Advanced WAN connectivity, including Frame Relay, ATM, ISDN, DSL, and modems; IP address scaling techniques; advanced access control; core issues in network design and management, focusing on multilayer switched networks and emerging multi-service networks. Will incorporate CCNP Cisco Academy curriculum. Three hours lecture, three hours lab.

**Prereq.:** CSIS 3783.

**CSIS 5884 Building Scalable Networks and Advanced Internetwork Troubleshooting 4 s.h.**

Designing scalable networks; advanced routing protocols; VLSM and route aggregation; management and diagnostic tools; troubleshooting tools and methodology for TCP/IP, Novell, and AppleTalk connectivity, VLANs, routers, and switches; Frame Relay and ISDN connectivity. Will incorporate CCNP Cisco Academy curriculum. Three hours lecture, three hours lab.

**Prereq.:** CSIS 3783.

## Computer Science

**CSCI 3710 Introduction to Discrete Structures 3 s.h.**

Basic set theory, including functions and relations. Boolean algebra, propositional logic, regular expressions, and finite automata.

**Prereq.:** CSIS 2610 and MATH 1571 or MATH 1585H, or Math Placement Level 9 or 90.

**CSCI 3750 Advanced UNIX and C Programming 3 s.h.**

Use of UNIX programming environment and associated tools and utilities. Command language programming. Systems programming with ANSI C. May include UNIX internals and system administration.

**Prereq.:** CSIS 3700.

**CSCI 3770 Survey of Programming Languages 3 s.h.**

Survey of several programming languages. May include Ada, Modula-2, C, Lisp, and SNOBOL.

**Prereq.:** CSIS 3701.

**CSCI 3780 Microcomputer System Software 3 s.h.**

Programming microprocessor based systems using assembly language. Study of addressing techniques, machine language, program segmentation, and linking on microcomputers.

**Prereq.:** CSIS 3700.

**CSCI 4805 System Programming 3 s.h.**

Topics selected from aspects of systems programming, including assemblers, loaders, linkage editors, macro processors, and file management.

**Prereq.:** CSIS 3700 and CSIS 3740.

**CSCI 4830 Advanced Computer Graphics 3 s.h.**

A thorough investigation of graphics algorithms. Topics include hidden surface removal, parametric curves, lighting, shading, and texturing. Implementation of a graphics project required.

**Prereq.:** CSIS 3730 and MATH 3720.

**CSCI 4862 Server-Side Web Development and Programming 3 s.h.**

Configuration of web server software and the use of server-side programming. Server-side scripting. Database access and drivers. Security issues, including access control and secured transmissions.

**Prereq.:** CSIS 3700 or CSIS 3701.



**CSCI 4890 Computer Projects 2-4 s.h.**

Individualized study of a topic in computer science culminating in a written report and an oral presentation. May be repeated up to 8 s.h.h. of upper-division CSCI courses) applicable to the minimum requirements of a computer science major, and formal project proposal.

**Prereq.:** 24 s.h. of computer science (including at least 3 s.

**Gen Ed:** Capstone.

**CSCI 5801 Software Engineering 3 s.h.**

Developing and maintaining complex software systems. Process and life-cycle models, and tools for software development (such as CASE). Specification methods, prototyping, validation and verification strategies, and version maintenance. Management of the system development process. A group project is required.

**Prereq.:** CSIS 3701.

**CSCI 5802 Software Tools and Practices 3 s.h.**

A course that focuses on the different tools and techniques that software engineers typically use while developing software. Topics include current software engineering tools and practices, software testing, software architecture, version control systems, build and make systems, debuggers, static analysis tools, dynamic analysis tools, and design patterns. Students gain experience in multiple environments (Windows and a UNIX-based environment).

**Prereq.:** Junior standing and CSIS 3700 or CSCI 6901.

**CSCI 5806 Operating Systems 3 s.h.**

Study of the various components of operating systems including kernels and monitors, currency and parallel processing, processor management, storage management, device management, I/O processing and file management.

**Prereq.:** CSIS 3700 and CSIS 3740.

**CSCI 5807 Compiler Design 3 s.h.**

Study of compiler design and construction, including context-free languages, lexical analysis, parsing, code generation and optimization.

**Prereq.:** CSIS 3700 and CSIS 3740, CSCI 3710.

**CSCI 5814 Computer Architecture 3 s.h.**

Study of high-performance sequential computer architecture. Topics include performance evaluation, instruction set design, processor implementation techniques, pipelining, vector processing, memory hierarchy design, and parallel architecture.

**Prereq.:** CSIS 3700 and CSIS 3740.

**CSCI 5820 Simulation 3 s.h.**

Methods for modeling discrete event systems by algorithmic approaches using simulation languages.

**Prereq.:** CSIS 3700 and STAT 3743.

**CSCI 5822 Database Design and Information Retrieval 3 s.h.**

Study of physical database storage, relational and object data modeling, logical database design (normalization process), and structural query languages.

**Prereq.:** CSIS 3700 and CSCI 3710.

**CSCI 5823 Communication Networks 3 s.h.**

Study of network structures and topologies, international standards, models, communication media and protocols, hardware and software.

**Prereq.:** CSIS 3700 and either CSIS 3723 or CSIS 3740.

**CSCI 5835 Artificial Intelligence 3 s.h.**

Study of the theory and applications of intelligent systems. Topics may include general problem-solving techniques, knowledge representation and expert systems, vision and perception, and natural language processing. AI systems and languages.

**Prereq.:** CSIS 3700 and CSCI 3710.

**CSCI 5840 Theory of Finite Automata 3 s.h.**

The structural and behavioral aspects of finite automata.

**Prereq.:** CSCI 3710 and MATH 3720.

**CSCI 5857 Encoding and Encryption 3 s.h.**

Securing computer and information systems through encoding and/or encryption. Private and public cryptographic methods, digital certificates and signatures, cryptovvariable techniques, key management, and database security issues.

**Prereq.:** CSIS 1560 or CSIS 2610; MATH 1552, MATH 1570 or MATH 1571 or Math Placement Test of 4 or 40 or higher; and at least 3 s.h. of upper-division departmental courses.

**CSCI 5860 Programming Language Structures 3 s.h.**

Systematic approach to the study of the structures of programming languages. Formal descriptions, syntax, semantics and technical characteristics.

**Prereq.:** CSIS 3701 and CSCI 3710.

**CSCI 5870 Data Structures and Algorithms 3 s.h.**

Study and application of analysis and design techniques to nonnumerical algorithms. Topics selected from algorithms acting on sets, trees, graphs; memory management; notions of complexity and related areas.

**Prereq.:** CSIS 3700 and CSCI 3710.

**CSCI 5881 Microcomputer System Architecture 3 s.h.**

State-of-the-art course on microcomputer architecture. Topics include introduction to microcomputer systems, 16 and 32 bit microprocessors, direct memory access and other I/O transfer schemes, architecture of I/O processors, introduction to computer communications.

**Prereq.:** CSIS 3740 and CSCI 3780.

**CSCI 5895 Special Topics 2-4 s.h.**

A study of special topics in computer science. Subject matter and credit hours will be announced in advance. May be repeated multiple times if topic is different.

**Prereq.:** At least 3 s.h. of upper-division departmental courses, and permission of chair.

## Information Technology

**INFO 1575 Document Preparation 4 s.h.**

Preparation of documents using information processing and standard and advanced electronic productivity tools such as templates, tables, columns, forms macros, graphics, and merging. Integration of documents with other software. Creating and maintaining hypertext documents.

**Prereq.:** Knowledge of word processing or ENGL 1550.

**INFO 2600 Concepts of Information Technologies 3 s.h.**

The foundation and general principles behind information technology, including data representation, encoding systems, encryption methods, database fundamentals, logic for programming, basic data analysis, and graph applications in networking.

**INFO 2663 Information Technology Management 3 s.h.**

Principles and practices of effective information systems management. Includes organization environment, leadership issues, information system types, strategic role of information technology, planning issues, managing and supporting essential technologies, system development and computing, and successful integration of people and technology.

**Prereq.:** CSIS 1590 or INFO 2600.

**INFO 2672 Desktop Publishing 1 3 s.h.**

Document creation using desktop publishing software on a microcomputer. Application must be mastered on a software package used by industry. Lab time required.

**Prereq.:** CSIS 1590.

**INFO 2673 Desktop Publishing 2 3 s.h.**

Specialized and advanced document creation using desktop publishing software used by industry. A second software package must be mastered. Lab time required.

**Prereq.:** INFO 2672.

**INFO 2698 Special Topics 1-3 s.h.**

An in-depth study of information technologies. Topics vary. May be repeated for different topics.

**Prereq.:** Permission of chairperson.

**INFO 3704 Business Communication 3 s.h.**

Communication theory and practice. Business letter writing; oral communication. Review of English usage.

**Prereq.:** ENGL 1551.

**INFO 3714 Advanced Spreadsheets 3 s.h.**

Includes macros, look-up tables, advanced problems, templates, and projects with emphasis on accounting and finance applications.

**Prereq.:** CSIS 1514 or CSIS 1590.

**INFO 3774 Multimedia Technology 4 s.h.**

Technical configurations, graphic creation, manipulation, exchange, and digital asset management. Web and multimedia audio and video. Video strategies on the Internet. Fundamental Web utility tools. Storyboarding strategies, layout, and design issues. Three hours lecture, two hours lab.

**Prereq.:** CSIS 1590.

**INFO 3775 Multimedia Authoring 4 s.h.**

A study of multimedia authoring tools. Methods for integrating text, graphics, sound, and video. Project required. Three hours lecture and two hours lab.

**Prereq.:** INFO 3774.

**INFO 3776 Client-Side Scripting Techniques 4 s.h.**

Scripting and the role of scripting languages in software development for the web, and identifying key scripting languages used for the web. Developing, debugging, and testing scripts for the web, and local and remote software version control systems. Three hours lecture and two hours lab.

**Prereq.:** CSIS 1570, and CSIS 2605 or CSIS 2610.

**INFO 3777 Computer Technology for Digital Image Processing 4 s.h.**

Study of tools and technology for digital image processing. Creating and capturing still and video images for use in Web site development. Techniques used in compression and archiving of graphics files. Project required. Three hours lecture and two hours lab.

**Prereq.:** INFO 3774.

**INFO 3787 Training and Employee Development 3 s.h.**

Theory and practice of designing training programs. Analyzing training needs, selecting instructional strategies, and implementing and evaluating training programs.

**Prereq.:** INFO 3774 or both INFO 1575 and CSIS 1590.

**INFO 3790 Integrated Information Systems 3 s.h.**

Students organize and operate an information center utilizing decision-making skills, and information systems procedures and components. Lab time required.

**Prereq.:** INFO 3714 or CSIS 3723.

**INFO 4880 Information Technology Analysis and Design 3 s.h.**

Information systems integration and modeling. Analysis of dynamic information flow, functional requirements, and system design in theory and practice.

**Prereq.:** CSIS 3722 and either CSIS 3723 or CSIS 3782.

**Gen Ed:** Capstone.

**INFO 4895 Special Topics 2-4 s.h.**

A study of special topics in information technologies. Subject matter and credit hours will be announced in advance. May be repeated multiple times if topic is different.

**Prereq.:** At least 3 s.h. of upper-division departmental courses and permission of chair.

**INFO 5875 Advanced Multimedia Authoring 4 s.h.**

Advanced study of multimedia authoring tools. Analysis of commercial applications. Group project required. Three hours lecture and two hours lab.

**Prereq.:** INFO 3775.

## Associate of Applied Science in Computer Information Systems

The computer information systems program offers students the flexibility of earning either a two-year AAS degree or continuing for an additional two years to obtain a four-year BSAS degree through the two-plus-two program.

This discipline covers both the technical and end-user aspects of computing, using PCs through mainframe computers with hands-on experience.

Student skills are developed in computation that includes:

- application programming
- networking and telecommunications
- database design
- cyber security
- analysis of complex business and technical environments

CIS graduates of the AAS degree program will continue their studies towards a bachelor's degree in a computer or information technology area or obtain employment as programmers, computer specialists, and in other closely related fields.

CIS graduates of the BSAS degree program will obtain full-time employment as programmers, network administrators, systems analysts, computer specialists, and in other closely related fields.

## Associate Degree Program

The computer information systems associate degree program emphasizes the use of computers to solve business or science problems. The graduate may be employed in positions involving direct use of microcomputers and mainframe computers for business or science administration and decision support applications. This degree may be earned in four semesters if students average 16 hours per semester.

Students wishing to receive the Associate of Applied Science in computer information systems must complete the following:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		13
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 1570	Applied Calculus 1	
Gen Ed course (2 courses from NS, AH, SS< or SPA)		6
<b>Major Requirements</b>		
CSIS 1590	Survey of Computer Science and Information Systems	3
CSIS 1595	Fundamentals of Programming and Problem- Solving 1	3
CSIS 2605	Fundamentals of Programming and Problem- Solving 2	3
CSIS 3722	Development of Databases	3
CSIS 3723	Networking Concepts and Administration	3
CSIS 3726	Visual/Object-Oriented Programming	4
CSIS 3760	Electronic Commerce Programming	3
ACCT 2602	Financial Accounting	3
<b>Support Courses</b>		
ACCT 2603	Managerial Accounting	3
ENGL 3743	Professional and Technical Writing	3
PHIL 2619	Introduction to Logic	3
<b>Electives</b>		

Select at least 9 additional semester hours of upper division CIS electives. 9

**Total Semester Hours 62**

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
CSIS 1590	Survey of Computer Science and Information Systems	3
CSIS 1595	Fundamentals of Programming and Problem-Solving 1	3
ENGL 1550	Writing 1	3
MATH 1570	Applied Calculus 1	4
Natural Science GER		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
CSIS 2605	Fundamentals of Programming and Problem-Solving 2	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
PHIL 2619	Introduction to Logic	3
PHIL 2625	Introduction to Professional Ethics	3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
CSIS 3722	Development of Databases	3
CSIS 3723	Networking Concepts and Administration	3
CIS or CSIS Elective		3
CIS or CSIS Elective		3
ACCT 2602	Financial Accounting	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CSIS 3726	Visual/Object-Oriented Programming	4
CSIS 3760	Electronic Commerce Programming	3
CIS or CSIS Elective		3
ACCT 2603	Managerial Accounting	3
ENGL 3743	Professional and Technical Writing	3
<b>Semester Hours</b>		<b>16</b>
<b>Total Semester Hours</b>		<b>62</b>

related to electronic commerce using server-side languages such as Perl and client-side languages such as JavaScript.

## Associate of Applied Science in Information Technology

Information technology provides systematic foundations that include methodologies and models for conceptualizing the complex dynamics of the Information Technology environment as it applies to information systems design and implementation.

IT professionals possess the right combination of knowledge and practical, hands-on expertise to take care of both an organization's information technology infrastructure and the people who use it. They assume responsibility for selecting hardware and software products appropriate for an organization. They integrate those products with organizational needs and infrastructure, and install, customize and maintain those applications, thereby providing a secure and effective environment that supports the activities of the organization's computer users. In IT, programming often involves writing short programs that typically connect existing components (scripting).

Planning and managing an organization's IT infrastructure is a difficult and complex job that requires a solid foundation in applied computing as well as management and people skills. Those in the IT discipline require special skills – in understanding, for example, how networked systems are composed and structured, and what their strengths and weaknesses are. There are important software systems concerns such as reliability, security, usability, and effectiveness and efficiency for their intended purpose; all of these concerns are vital. These topics are difficult and intellectually demanding.

The program supports work processes and employee performance enhancements; is designed to improve overall workgroup and individual productivity; and addresses the creation, distribution, storage, and use of information in all its states. Business processes are incorporated as an integral part of all course content. Information Technology encompasses:

- End-User Computing
- Information Centers
- Computer-Supported Work
- Performance Support
- Project Management
- Multimedia
- Networks
- Database Systems
- System Analysis
- Information Security

IT graduates of the AAS degree program will continue their studies towards a bachelor's degree in a computer or information technology area or will obtain full-time employment as web technicians, help desk support, network technicians, and in other closely related fields.

IT graduates of the BSAS degree program will obtain full-time employment as web designers, network administrators, multimedia specialists, and in other closely related fields.

## Associate Degree Program

Graduates of the associate degree program can pursue careers in service and support of information systems, as well as continuing on to a bachelor's degree in information technology. This degree may be earned in four semesters if students average 16-17 hours per semester.

Students wishing to receive the Associate of Applied Science in information technology must complete the following:

## Learning Outcomes

1. The Associates program in Computer Information Systems provides preparation for students to develop problem-solving techniques to aid in the design, coding, debugging and documentation of high-level programming languages.
2. The Associates program in Computer Information Systems provides preparation for students to understand the basic structure, design, development, implementation, and modification of databases for use in management of information systems.
3. The Associates program in Computer Information Systems provides preparation for students to understand network topologies and the design, administration, and performance monitoring of computer networks and network applications.
4. The Associates program in Computer Information Systems provides preparation for students to use visual/object-oriented programming languages to develop interactive, database and internet programs.
5. The Associates program in Computer Information Systems provides preparation for students to write programs for client/server systems

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		13
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 1552	Applied Mathematics for Management	
Gen Ed course (2 courses from NS, AH, SS, or SPA)		6
<b>Major Requirements</b>		
CSIS 1525	Survey of Modern Operating Systems	3
CSIS 1590	Survey of Computer Science and Information Systems	3
CSIS 1595	Fundamentals of Programming and Problem-Solving 1	3
CSIS 2605	Fundamentals of Programming and Problem-Solving 2	3
INFO 2663	Information Technology Management	3
INFO 3774	Multimedia Technology	4
INFO 3704	Business Communication	3
or ENGL 3743	Professional and Technical Writing	
INFO 3775	Multimedia Authoring	4
CSIS 2699	Computer Science and Information Systems Internship	1
or CSIS 4893	Computer Science and Information Systems Advanced Internship	
CSIS 2620	System Configuration and Maintenance	3
CSIS 3722	Development of Databases	3
CSIS 3723	Networking Concepts and Administration	3
or CSIS 3783	Cisco Networking Academy 2	
CSIS 3755	Information Assurance	3
<b>Specialization Area</b>		
Select an advisor approved specialization area of at least 8 semester hours.		8
<b>Total Semester Hours</b>		<b>66</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
CSIS 1590	Survey of Computer Science and Information Systems	3
CSIS 1595	Fundamentals of Programming and Problem-Solving 1	3
CMST 1545	Communication Foundations	3
MATH 1552	Applied Mathematics for Management	4
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
ENGL 1551	Writing 2	3
CSIS 1525	Survey of Modern Operating Systems	3
CSIS 2605	Fundamentals of Programming and Problem-Solving 2	3
INFO 2663	Information Technology Management	3
CSIS 2620	System Configuration and Maintenance	3
General Ed Course		3
<b>Semester Hours</b>		<b>18</b>

<b>Year 2</b>		
<b>Fall</b>		
CSIS 3722	Development of Databases	3
CSIS 3723	Networking Concepts and Administration	3

CSIS 3755	Information Assurance	3
INFO 3774	Multimedia Technology	4
INFO Specialization Course		4

<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
INFO 3775	Multimedia Authoring	4
INFO 3704	Business Communication	3
or ENGL 3743	or Professional and Technical Writing	
INFO Specialization Course		4
CSIS 2699	Computer Science and Information Systems Internship	1
General Education Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>66</b>

## Learning Outcomes

1. The Associate program in Information Technology provides preparation for student's basic knowledge of technologies in the implementation and troubleshooting of networks.
2. The Associate program in Information Technology provides preparation for student's basic knowledge of technologies in designing databases and extracting information using appropriate programs or applications.
3. The Associate program in Information Technology provides preparation for student's basic knowledge of technologies in assessing information management processes and procedures and the application of technologies.
4. The Associate program in Information Technology provides preparation for student's basic knowledge of technologies in developing interactive programs.

## Bachelor of Science in Applied Science in Computer Information Systems

The computer information systems program offers students the flexibility of earning either a two-year AAS degree or continuing for an additional two years to obtain a four-year BSAS degree through the two-plus-two program.

This discipline covers both the technical and end-user aspects of computing, using PCs through mainframe computers with hands-on experience.

Student skills are developed in computation that includes:

- application programming
- networking and telecommunications
- database design
- cyber security
- analysis of complex business and technical environments

CIS graduates of the AAS degree program will continue their studies towards a bachelor's degree in a computer or information technology area or obtain employment as programmers, computer specialists, and in other closely related fields.

CIS graduates of the BSAS degree program will obtain full-time employment as programmers, network administrators, systems analysts, computer specialists, and in other closely related fields.

## Bachelor's Degree Program

The computer information systems professional will develop his or her ability to conceptualize, design, and implement high quality information systems

based upon computer systems ranging from a single-user system to complex, interactive, and multi-user distributed systems. This degree may be earned in eight semesters if students average 15-16 hours per semester.

Students wishing to receive the Bachelor of Applied Science in Computer Information Systems must complete the following:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies 9		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement <small>Included in Support Courses</small>		
University general education requirements in essential skills and knowledge domains.		28
Arts and Humanities		
PHIL 2625	Introduction to Professional Ethics	
Natural Sciences		
Social Science		
Social and Personal Awareness		
General Education Elective		
<b>Major Requirements</b>		
CSIS 1590	Survey of Computer Science and Information Systems	3
CSIS 1595	Fundamentals of Programming and Problem-Solving 1	3
CSIS 2605	Fundamentals of Programming and Problem-Solving 2	3
CSIS 3722	Development of Databases	3
CSIS 3723	Networking Concepts and Administration	3
CSIS 3726	Visual/Object-Oriented Programming	4
CSIS 3760	Electronic Commerce Programming	3
CIS 4840	Business System Analysis and Design	4
<b>Departmental Electives</b>		
Select at least 21 additional semester hours from CSIS 1525, 2620, or Upper Division electives		21
Support Courses		
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
STAT 3717	Statistical Methods	4
MATH 1570	Applied Calculus 1	4
ENGL 3743	Professional and Technical Writing	3
PHIL 2619	Introduction to Logic	3
<b>Minor</b>		18
Select at least 18 semester hours. <small>Some Gen Ed courses may be included in the minor</small>		
<b>Total Semester Hours</b>		<b>122</b>
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
CSIS 1590	Survey of Computer Science and Information Systems	3
CSIS 1595	Fundamentals of Programming and Problem-Solving 1	3
ENGL 1550	Writing 1	3
MATH 1570	Applied Calculus 1	4
GER Natural Science		3
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
CSIS 2605	Fundamentals of Programming and Problem-Solving 2	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
PHIL 2619	Introduction to Logic	3
GER Social Science		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
CSIS 3722	Development of Databases	3
CSIS 3723	Networking Concepts and Administration	3
CIS/CSIS Upper Division Elective		3
Minor course		3
ACCT 2602	Financial Accounting	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CSIS 3726	Visual/Object-Oriented Programming	4
CSIS 3760	Electronic Commerce Programming	3
Minor course		3
ACCT 2603	Managerial Accounting	3
ENGL 3743	Professional and Technical Writing	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
CIS/CSIS Upper Division Elective		3
PHIL 2625	Introduction to Professional Ethics (AH)	3
STAT 3717	Statistical Methods	4
Minor course		3
GER Social & Personal Awareness		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
CIS/CSIS Upper Division Elective		3
CIS/CSIS Upper Division Elective		3
Minor course		3
GER Natural Science + Lab		4
GER Social Science		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
CIS/CSIS Upper Division Elective		3
CIS/CSIS Upper Division Elective		3
Minor course		3
GER Arts & Humanities		3
GER NS, AH, SS, or SPA		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CIS 4840	Business System Analysis and Design	4
CIS/CSIS Upper Division Elective		3
Minor course		3
GER Social & Personal Awareness		3
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>122</b>
<i>Learning Outcomes</i>		

1. The Bachelors program in Computer Information Systems provides preparation for students to develop problem-solving techniques to aid in the design, coding, debugging and documentation of high-level programming languages.
2. The Bachelors program in Computer Information Systems provides preparation for students to analyze the basic structure, design, development, implementation, and modification of databases for use in management of information systems.
3. The Bachelors program in Computer Information Systems provides preparation for students to analyze network topologies and the design, administration, and performance monitoring of computer networks and network applications.
4. The Bachelors program in Computer Information Systems provides preparation for students to use visual/object-oriented programming languages to develop interactive, database and internet programs.
5. The Bachelors program in Computer Information Systems provides preparation for students to write programs for client/server web systems related to electronic commerce using server-side languages such as Perl and client-side languages such as JavaScript.
6. The Bachelors program in Computer Information Systems provides preparation for students to demonstrate oral communication skills for the analysis, design, development and maintenance of business systems.
7. The Bachelors program in Computer Information Systems provides preparation for students to demonstrate written communication skills for the analysis, design, development and maintenance of business systems.

- Networks
- Database Systems
- System Analysis
- Information Security

IT graduates of the AAS degree program will continue their studies towards a bachelor's degree in a computer or information technology area or will obtain full-time employment as web technicians, help desk support, network technicians, and in other closely related fields.

IT graduates of the BSAS degree program will obtain full-time employment as web designers, network administrators, multimedia specialists, and in other closely related fields.

## Bachelor's Degree Program

The information technology professional will develop his or her ability to conceptualize, design, and implement high-quality information systems based upon computer systems ranging from single-user systems to complex, interactive, and multi-user distributed systems. This degree may be earned in eight semesters if students average 16 hours per semester.

IT majors will choose to follow one of several concentration areas:

- database
- e-commerce programming
- multimedia/web design
- networking
- security

Students wishing to receive the Bachelor of Applied Science in information technology must complete the following:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		9
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement <small>Included in Support Courses</small>		
<b>University general education requirements in essential skills and knowledge domains.</b>		28
Arts and Humanities		
Natural Sciences		
Social Science		
Social and Personal Awareness		
General Education Elective		
<b>Major Requirements</b>		
CSIS 1525	Survey of Modern Operating Systems	3
CSIS 1570	Web Systems and Technologies	3
CSIS 1590	Survey of Computer Science and Information Systems	3
CSIS 1595	Fundamentals of Programming and Problem- Solving 1	3
CSIS 2605	Fundamentals of Programming and Problem- Solving 2	3
CSIS 3722	Development of Databases	3
CSIS 3723 or CSIS 3782	Networking Concepts and Administration Cisco Networking Academy 1	3
CSIS 3731	Human-Computer Interaction	3
CSIS 3755	Information Assurance	3
INFO 2663	Information Technology Management	3
INFO 4880	Information Technology Analysis and Design	3

## Bachelor of Science in Applied Science in Information Technology

Information technology provides systematic foundations that include methodologies and models for conceptualizing the complex dynamics of the Information Technology environment as it applies to information systems design and implementation.

IT professionals possess the right combination of knowledge and practical, hands-on expertise to take care of both an organization's information technology infrastructure and the people who use it. They assume responsibility for selecting hardware and software products appropriate for an organization. They integrate those products with organizational needs and infrastructure, and install, customize and maintain those applications, thereby providing a secure and effective environment that supports the activities of the organization's computer users. In IT, programming often involves writing short programs that typically connect existing components (scripting).

Planning and managing an organization's IT infrastructure is a difficult and complex job that requires a solid foundation in applied computing as well as management and people skills. Those in the IT discipline require special skills – in understanding, for example, how networked systems are composed and structured, and what their strengths and weaknesses are. There are important software systems concerns such as reliability, security, usability, and effectiveness and efficiency for their intended purpose; all of these concerns are vital. These topics are difficult and intellectually demanding.

The program supports work processes and employee performance enhancements; is designed to improve overall workgroup and individual productivity; and addresses the creation, distribution, storage, and use of information in all its states. Business processes are incorporated as an integral part of all course content. Information Technology encompasses:

- End-User Computing
- Information Centers
- Computer-Supported Work
- Performance Support
- Project Management
- Multimedia

Concentration area		9
<b>Database Concentration</b>		
CSIS 3726	Visual/Object-Oriented Programming	
CSIS 4822	Database Applications	
INFO 3714	Advanced Spreadsheets	
<b>E-Commerce Concentration</b>		
CSIS 2660	Foundations of Electronic Commerce	
CSIS 3760	Electronic Commerce Programming	
CSIS 3761	Electronic Commerce Strategies	
<b>Multimedia Concentration</b>		
CSIS 3760	Electronic Commerce Programming	
INFO 3775	Multimedia Authoring	
INFO 3776	Client-Side Scripting Techniques	
INFO 3777	Computer Technology for Digital Image Processing	
INFO 5875	Advanced Multimedia Authoring	
<b>Networking Concentration</b>		
CSIS 2620	System Configuration and Maintenance	
CSIS 3783	Cisco Networking Academy 2	
CSIS 4823	Data Communications Networking	
CSIS 5883	Remote Access and Multilayer Switched Networks	
CSIS 5884	Building Scalable Networks and Advanced Internetwork Troubleshooting	
<b>Security Concentration</b>		
CSIS 2620	System Configuration and Maintenance	
CSIS 3756	Security Design	
CSIS 3757	Computer Forensics	
CSCI 5857	Encoding and Encryption	
CSCI 5895	Special Topics	
<b>Departmental Electives</b>		
Select at least 6 additional semester hours of upper division Information Technology or CSIS courses. CSCI or CIS courses numbered 3000 and above may also be used as electives with advisor approval.		6
<b>Support Courses</b>		
STAT 2601	Introductory Statistics	3
MATH 1552	Applied Mathematics for Management	4
INFO 3704	Business Communication	3
or ENGL 3743	Professional and Technical Writing	
<b>Minor</b>		
Select at least 18 s.h. from an unspecified minor.		18
Free Electives	Any courses to meet 120 total hours	7
<b>Total Semester Hours</b>		<b>120</b>
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
CSIS 1590	Survey of Computer Science and Information Systems	3
CSIS 1595	Fundamentals of Programming and Problem-Solving 1	3
CMST 1545	Communication Foundations	3
GER Natural Science + Lab		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CSIS 1525	Survey of Modern Operating Systems	3

CSIS 2605	Fundamentals of Programming and Problem-Solving 2	3
INFO 2663	Information Technology Management	3
MATH 1552	Applied Mathematics for Management	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
CSIS 1570	Web Systems and Technologies	3
CSIS 3722	Development of Databases	3
STAT 2601	Introductory Statistics	3
<b>Minor</b>		
GER Arts & Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CSIS 3731	Human-Computer Interaction	3
CSIS 3723 or CSIS 3782	Networking Concepts and Administration or Cisco Networking Academy 1	3
INFO 3704 or ENGL 3743	Business Communication or Professional and Technical Writing	3
Minor Course		3
GER Social Science		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
CSIS 3755	Information Assurance	3
INFO/CSIS UD Elective		3
Minor Course		3
GER Social & Personal Awareness		3
GER Arts & Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
IT Concentration		3
Free elective		3
Minor Course		3
GER Social Science		3
GER Social & Personal Awareness		3
Request a Graduation Evaluation after completing 80-85 s.h. from the STEM Advising Center, 2325 Moser Hall, (330) 941-2512.		
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
IT Concentration		3
INFO/CSIS UD elective		3
Minor Course		3
GER NS		3
Free Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
INFO 4880	Information Technology Analysis and Design	3
IT Concentration		3
IT Concentration		3
Minor Course		3
Free Elective		1
GER NS, AH, SS, or SPA		3
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

1. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to perform network design, implementation, and administration.
2. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to perform information assurance and security.
3. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to design, implement, and administer databases.
4. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to design and implement reports and documents required by the organization through extraction of information using appropriate programs and applications.
5. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to demonstrate information management skills in project management and system analysis, design, implementation, testing and monitoring.
6. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to write and produce or assist in developing interactive programs.
7. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to recognize technical and legal issues involved with technologies and concepts used in information technology.

## Bachelor of Science in Computer Science

Computer Science spans the range from theory through programming to cutting-edge development of computing solutions. Computer Science offers a foundation that permits graduates to adapt to new technologies and new ideas. The work of computer scientists falls into three categories:

- designing and building software
- developing effective ways to solve computing problems, such as storing information in databases, sending data over networks, or providing new approaches to security problems
- devising new and better ways of using computers and addressing particular challenges in areas such as robotics, computer vision, or digital forensics

Like most Computer Science programs, the YSU Computer Science major requires significant mathematical background.

The Computer Science program leads to the degree of Bachelor of Science. The flexibility of the program allows the student many choices including a second minor.

This degree may be earned in eight semesters if students average 16 hours per semester.

In addition to completing all general University requirements, students wishing to receive the Bachelor of Science in computer science must complete the following:

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		9
ENGL 1550	Writing 1	

ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement <sup>Included in Math minor</sup>		
<b>University general education requirements in essential skills and knowledge domains.</b>		28
<b>Arts and Humanities</b>		
PHIL 2625	Introduction to Professional Ethics	
<b>Natural Sciences</b>		
Social Science		
Social and Personal Awareness		
General Education Elective		
<b>Major Requirements</b>		
CSIS 2610	Programming and Problem-Solving	4
CSIS 3700	Data Structures and Objects	4
CSIS 3701	Advanced Object-oriented Programming	3
CSIS 3740	Computer Organization	4
CSCI 3710	Introduction to Discrete Structures	3
CSCI 5806	Operating Systems	3
CSCI 5801	Software Engineering	3
or CSCI 5814	Computer Architecture	
CSCI 5870	Data Structures and Algorithms	3
CSCI 4890	Computer Projects (at least 2 s.h.)	2
ENGL 3743	Professional and Technical Writing	3
Select at least 12 additional semester hours from the approved list available in the department office.		12
<b>Mathematics Minor</b>		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 3720	Linear Algebra and Matrix Theory	3
STAT 3743	Probability and Statistics	3
or MATH 3760	Numerical Analysis 1	
Additional MATH course <sup>To meet 18 hour minor</sup>		4
Free Electives <sup>Any courses to meet 120 total hours</sup>		21
<b>Total Semester Hours</b>		<b>120</b>
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
CSIS 2610	Programming and Problem-Solving	4
MATH 1571	Calculus 1	4
ENGL 1550	Writing 1	3
GER Natural Science + Lab		4
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CSIS 3700	Data Structures and Objects	4
MATH 1572	Calculus 2 (minor)	4
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>14</b>
<b>Year 2</b>		
<b>Fall</b>		
CSIS 3701	Advanced Object-oriented Programming	3
CSIS 3740	Computer Organization	4
PHIL 2625	Introduction to Professional Ethics (AH)	3
GER Social Science		3



Free Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
CSCI 3710	Introduction to Discrete Structures	3
MATH 3720	Linear Algebra and Matrix Theory	3
ENGL 3743	Professional and Technical Writing	3
GER Social Science		3
GER Arts & Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 3</b>		
<b>Fall</b>		
CSCI 5801	Software Engineering	3
CSCI/CSIS Upper Division Elective		3
STAT 3743	Probability and Statistics	3
	or MATH 3760 or Numerical Analysis 1	
GER Social & Personal Awareness		3
Free Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CSCI/CSIS Upper Division Elective		3
CSCI/CSIS Upper Division Elective		3
Math Minor Upper Division Elective		3
GER Natural Science		3
GER Social & Personal Awareness		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
CSCI 5870	Data Structures and Algorithms	3
CSCI 4890	Computer Projects	2
Math Minor Upper Division Elective		3
GER NS, AH, SS, or SPA		3
Free Elective		3
Free Elective	Any course to meet a total of 120 hours	1
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
CSCI 5806	Operating Systems	3
CSCI/CSIS Upper Division Elective		3
Free Elective		3
Free Elective		3
Free Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

Request a Graduation Evaluation after completing 80-85 s.h. from the STEM Advising Center, 2325 Moser Hall, (330) 941-2512.

## Learning Outcomes

Computer science students in the BS degree program will:

- be able to analyze, design, implement and test computer programs by using the appropriate data structures and algorithms.
- obtain full-time employment as programmers, systems analysts, computer specialists and in other closely related fields or/and acceptance to graduate programs.
- communicate effectively with written reports and presentations.

## Minor in Computer Databases

COURSE	TITLE	S.H.
CSIS 1590	Survey of Computer Science and Information Systems	3
CSIS 2610	Programming and Problem-Solving	4
CSIS 3722	Development of Databases	3
CSIS 3726	Visual/Object-Oriented Programming	4
CSIS 3732	Intranet Database Implementation	3
CSIS 4822	Database Applications	3
<b>Total Semester Hours</b>		<b>20</b>

## Minor in Computer Networking

COURSE	TITLE	S.H.
CSIS 1590	Survey of Computer Science and Information Systems	3
Select at least 15 hours from the following:		15-16
CSIS 3723	Networking Concepts and Administration	
CSIS 3782	Cisco Networking Academy 1	
CSIS 3783	Cisco Networking Academy 2	
CSIS 4823	Data Communications Networking	
CSIS 5883	Remote Access and Multilayer Switched Networks	
CSIS 5884	Building Scalable Networks and Advanced Internetwork Troubleshooting	
CSCI 5823	Communication Networks	
<b>Total Semester Hours</b>		<b>18-19</b>

## Minor in Computer Science

COURSE	TITLE	S.H.
CSIS 2610	Programming and Problem-Solving	4
CSIS 3700	Data Structures and Objects	4
CSIS 3701	Advanced Object-oriented Programming	3
Select three of the following:		9-10
CSIS 3730	Computer Graphics	
CSIS 3740	Computer Organization	
CSIS 3760	Electronic Commerce Programming	
CSIS 4819	Parallel and Distributed Computing	
CSIS 5824	Applied Artificial Intelligence	
CSCI 5806	Operating Systems	
CSCI 5814	Computer Architecture	
CSCI 5870	Data Structures and Algorithms	
<b>Total Semester Hours</b>		<b>20-21</b>

## Minor in Electronic Commerce Technology

COURSE	TITLE	S.H.
CSIS 1590	Survey of Computer Science and Information Systems	3
CSIS 2610	Programming and Problem-Solving	4
CSIS 2660	Foundations of Electronic Commerce	3
CSIS 3732	Intranet Database Implementation	3
CSIS 3760	Electronic Commerce Programming	3
CSIS 3761	Electronic Commerce Strategies	3
<b>Total Semester Hours</b>		<b>19</b>

## Minor in Information Systems Programming

COURSE	TITLE	S.H.
CSIS 2610	Programming and Problem-Solving	4
Select at least 14 hours from the following:		14
CSIS 3700	Data Structures and Objects	
CSIS 3701	Advanced Object-oriented Programming	
CIS 3714	Assembly Language and Architecture	
CSIS 3726	Visual/Object-Oriented Programming	
CIS 3735	UNIX Environment	
CSIS 3760	Electronic Commerce Programming	
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Integrated Technologies

COURSE	TITLE	S.H.
CSIS 1590	Survey of Computer Science and Information Systems	3
INFO 1575	Document Preparation	4
INFO 3714	Advanced Spreadsheets	3
INFO 3774	Multimedia Technology	4
Select two of the following:		6
INFO 3787	Training and Employee Development	
CSIS 3723	Networking Concepts and Administration	
CSIS 3722	Development of Databases	
<b>Total Semester Hours</b>		<b>20</b>

## Minor in Multimedia and Web Design

COURSE	TITLE	S.H.
CSIS 1590	Survey of Computer Science and Information Systems	3
INFO 3774	Multimedia Technology	4
INFO 3775	Multimedia Authoring	4
INFO 3776	Client-Side Scripting Techniques	4
INFO 3777	Computer Technology for Digital Image Processing	4
<b>Total Semester Hours</b>		<b>19</b>

## Minor in Object-Oriented Programming

COURSE	TITLE	S.H.
CSIS 1590	Survey of Computer Science and Information Systems	3
CSIS 2610	Programming and Problem-Solving	4
CSIS 3700	Data Structures and Objects	4
CSIS 3701	Advanced Object-oriented Programming	3
CSIS 3726	Visual/Object-Oriented Programming	4
CSIS 3760	Electronic Commerce Programming	3
<b>Total Semester Hours</b>		<b>21</b>

## Department of Electrical and Computer Engineering

(330) 941-3012

The department offers coursework leading to the Bachelor of Engineering with a major in electrical engineering. Traditional, computer/digital, and biomedical options are available. The first courses in the department major

are electrical and computer engineering ECEN 1521 Digital Circuits and ECEN 1521L Digital Circuits Laboratory, and are available to all University students without prerequisites. Visit the department office or website for details.

## Mission

The Department of Electrical and Computer Engineering is committed to academic excellence, and it provides educational opportunities in electrical and computer engineering. We provide students at baccalaureate and master levels with diverse and comprehensive educational experiences which meet the highly demanding standards required by industry and preparation for further education.

We utilize the resources of the university and interact with industry to evaluate, optimize, and upgrade our teaching, research, scholarship, service and facilities to continue offering a high-standard educational environment. We promote students' intellectual growth to become fully developed, informed, and productive in order to serve themselves and their local and global communities effectively.

## Program Educational Objectives

The Department of Electrical and Computer Engineering at Youngstown State University offers students a high standard of engineering education. In fulfillment of its mission, as well as the missions of the College of Science, Technology, Engineering, and Mathematics and the University, the following Program Educational Objectives are established for the Electrical Engineering Program.

Within a few years of graduation, our graduates should be able to:

- Demonstrate technical competency in electrical engineering and its related fields while utilizing and disseminating engineering knowledge and skills.
- Design, analyze, test, and implement systems and devices which meet realistic economic constraints in engineering practice, regionally and globally.
- Practice engineering ethically and responsibly, both individually and in diverse teams, while considering global issues and the importance of engineering in society.
- Sustain career growth through life-long learning in their engineering professions and post-graduate education.

## Laboratory Facilities

The Department of Electrical and Computer Engineering maintains well-equipped laboratory facilities for circuits, electronics, communications, electromagnetics, energy conversion, power systems, control systems, and digital systems. PC computing and wireless networking are available, as well as various licensed software packages.

## Professional Practice

The Department of Electrical and Computer Engineering participates in the College of STEM Professional Practice Program.

Students who complete course and internship requirements related to the field may receive up to 2 s.h. of credit toward ECEN elective courses. Contact the department for details.

## Options

Traditional, computer/digital, and biomedical options with design projects, computer simulation, and hands-on laboratory sessions are the pillars of the Bachelor of Engineering with a major in electrical engineering. These features provide students with the opportunity to prepare for a vast array of entry-level positions or advanced studies.

With faculty assistance, students tailor their programs to meet their educational objectives. This individualized approach includes choices of

options and elective courses, participation in a co-op, and semester-by-semester scheduling of courses.

## Traditional Option

The traditional option:

COURSE	TITLE	S.H.
Electrical Engineering Core		55
Other Engineering		9
Math		18
Science		15
Writing and Speech		9
General Education Courses		18
<b>Total Semester Hours</b>		<b>124</b>

## Computer/digital Option

The computer/digital option:

COURSE	TITLE	S.H.
Electrical Engineering Core		43
Other Engineering		9
Computer Engineering/Science		19
Math		18
Science		15
Writing and Speech		9
General Education Courses		18
<b>Total Semester Hours</b>		<b>131</b>

## Biomedical Option

The biomedical option:

COURSE	TITLE	S.H.
Electrical Engineering Core		43
Other Engineering		9
Math		18
Science including Biology and Organic Chemistry		32
Writing and Speech		9
General Education Courses		18
<b>Total Semester Hours</b>		<b>129</b>

Students in any of these options can participate in the co-op program. Scheduling is reasonably flexible, but there are some restrictions.

## Course Scheduling

Scheduling of courses will depend upon your particular situation. Are you working part time? Will you pursue an internship? Do you wish a full- or part-time academic pursuit of the degree? Answers to these questions will affect your scheduling of courses. The Department of Electrical and Computer Engineering attempts to schedule junior and senior courses to accommodate these situations.

Advising is mandatory, and students are required to meet with their department advisors to choose their semester-by-semester courses. Also, up-to-date recommended schedule and curriculum lists are available on-line and at the department office.

For more information, visit the **Department of Electrical and Computer Engineering** (<http://www.ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major>).

Chair

**Jalal Jalali**, Ph.D., Professor, Chair

**Professor**

**Michael Ekoniak**, M.E., Assistant Professor

**Frank Xiyang Li**, Ph.D., Professor

**Eric MacDonald**, Ph.D., Professor

**Faramarz Doc Mossayebi**, Ph.D., Associate Professor

**Lin Sun**, Ph.D., Assistant Professor

**Instructor**

**Edward Burden**, M.S., Instructor

## Majors

- Electrical Engineering, Traditional Option (p. 512)
- Electrical Engineering, Computer/Digital Option (p. 510)
- Electrical Engineering, Biomedical Option (p. 508)

## Minors

- Minor in Electrical and Computer Engineering (p. 513)

### ECEN 1521 Digital Circuits 3 s.h.

Digital concepts and design techniques; number systems, switching algebra, logic gates, truth tables. Combinational logic circuits with an introduction to sequential circuits. Practical applications.

### ECEN 1521L Digital Circuits Laboratory 1 s.h.

Laboratory exercises to accompany ECEN 1521. Design and testing of combinational and sequential logic circuits. Experiments with digital hardware.

**Prereq. or concurrent:** ECEN 1521.

### ECEN 1555 Computer Engineering 3 s.h.

Introduction to the personal computer, applications software, technologies, microprocessors, microcomputer programming and applications. Basic operations of digital circuits, interfacing using integrated chips, and analog computers. Experiments accompany lectures, providing practical experience for students.

### ECEN 1555H Honors Computer Engineering 3 s.h.

The personal computer, its components, and the role it plays in control applications, instrumentation, and engineering design. Basic experiments using digital circuits, microcomputers, integrated circuits, and design software integrated into a project with the personal computer and instrumentation.

**Prereq. or concurrent:** ENGL 1550H and admission to the Honors Program, or permission of instructor and Director of Honors Program.

### ECEN 1560 Electrical Engineering Computing 2 s.h.

Problem solving techniques for the fields of electrical and computer engineering; procedural program development using the C/C++ programming language. Fundamentals of engineering drawing using AutoCAD commercial software packages. One hour lecture, three hours lab. ENGR 1555 may be taken concurrently.

**Prereq.:** MATH 1571 or concurrent high school technical drawing proficiency or ENGR 1555.

### ECEN 2610 Computer Tools for Electrical and Computer Engineering 1 s.h.

Introduction to software packages and resources such as MATLAB, PSpice, and Quartus II for analysis and design of circuits and systems. Prereq. or

**Concurrent:** ECEN 2632 and ECEN 2611.

### ECEN 2611 Instrumentation and Computation Lab 1 1 s.h.

Laboratory experiments and computer exercises to accompany ECEN 2632. Laboratory experimentation and basic instrumentation. Computer-aided analysis and simulation.

**Prereq. or concurrent** ECEN 2632.

**ECEN 2612 Instrumentation and Computation Lab 2 1 s.h.**

Laboratory experiments and computer exercises to accompany ECEN 2633. Laboratory experimentation and basic instrumentation. Computer-aided analysis and simulation.

**Prereq.:** ECEN 2611.

**Prereq. or concurrent:** ECEN 2633.

**ECEN 2614 Basics of Electrical Engineering 3 s.h.**

Introduction to electrical circuit elements and laws; DC and AC analysis. Introduction to digital devices and circuits with applications. Applications of electromagnetics. Intended for non-electrical engineering majors.

**Prereq.:** MATH 1571.

**ECEN 2632 Basic Circuit Theory 1 3 s.h.**

Basic principles of linear circuits. Circuits concepts and laws, methods of analysis, network theorems. Source-resistor circuits. Inductors and capacitors. Analysis of AC circuits using phasors; impedance and admittance. Power calculations in DC and AC circuits.

**Prereq. or concurrent:** MATH 1572.

**ECEN 2633 Basic Circuit Theory 2 3 s.h.**

Continuation of ECEN 2632. First- and second-order transients in RLC circuits. Mutual inductance and transformers. Three-phase circuits. Transform methods in circuit analysis, transfer functions, resonance.

**Prereq.:** ECEN 2632.

**Prereq. or concurrent:** MATH 2673.

**ECEN 3710 Signals and Systems 3 s.h.**

Operation and analysis of communication, control, and computer systems at the signal level. Computer aided design tools and methods to analyze signals and systems. Continuous and discrete-time transforms. Noise analysis, signal detections, line codes, and multiplexing.

**Prereq.:** ECEN 2633, ECEN 1521 and MATH 3705.

**ECEN 3711 Intermediate Laboratory 1 1 s.h.**

Laboratory experiments and computer exercises in the areas of digital and analog electronics and logic and computer circuits. Designed to accompany the co-requisite courses.

**Prereq.:** ECEN 2612.

**Prereq. or concurrent:** ECEN 3733 and ECEN 3771.

**ECEN 3712 Intermediate Laboratory 2 1 s.h.**

Laboratory experiments and computer exercises in the areas of digital and analog electronics, logic and computer circuits, and electromagnetics. Designed to accompany the co-requisite courses.

**Prereq.:** ECEN 3711.

**Prereq. or concurrent:** ECEN 3742 and either ECEN 3772 or ECEN 3734.

**ECEN 3717 Sensor Fundamentals 3 s.h.**

Basic principles of sensors such as electro-chemical, -mechanical, -optical, and -thermal transducers. Signal conditioning and smart sensors. Applications to process control and environmental systems.

**Prereq.:** MATH 3705, and either PHYS 2611 or ECEN 2632.

**ECEN 3730 Microprocessors and Microcontrollers 3 s.h.**

Organization and structured assembly language programming. Digital controller devices and their relationships to processors and physical environments. Two hours lecture and three hours laboratory per week.

**Prereq.:** ECEN 3733.

**ECEN 3733 Digital Circuit Design 3 s.h.**

Modern digital circuit analysis and design. Latches, flip-flops, registers, counters, memories, programmable logic arrays, and arithmetic logic units. Logic gate-level synthesis and computer simulation using CAD tools. Synchronous and asynchronous finite-state machines.

**Prereq.:** ECEN 1521, ECEN 2633.

**ECEN 3734 Computer Design 3 s.h.**

Systematic methodologies for digital computer hardware and software designs. VLSI circuits. SOPC, CPLD, and FPGA designs. Hardware description languages.

**Prereq.:** ECEN 3733.

**ECEN 3741 Electromagnetic Fields 1 3 s.h.**

Maxwell's equations. Static electric and magnetic fields. Magnetic materials and forces, dielectrics, conductance, capacitance, and inductance. Poisson's and Laplace's equations.

**Prereq.:** ECEN 2633, prerequisite or concurrent MATH 3705.

**ECEN 3742 Electromagnetic Fields 2 3 s.h.**

Maxwell's equations. Time varying electric and magnetic fields. Electro-mechanical devices, transmission lines, microwaves. Antennas and radiation.

**Prereq.:** ECEN 3741.

**ECEN 3771 Digital and Analog Circuits 1 3 s.h.**

Terminal characteristics of electronic devices such as diodes, BJTs (bipolar junction transistors), FETs (field effect transistors), and operational amplifiers. The design of digital circuits with these devices. Basic bias and small-signal models for analog amplifiers. Computer-aided design and analysis.

**Prereq.:** ECEN 2633.

**ECEN 3772 Digital and Analog Circuits 2 3 s.h.**

Continuation of ECEN 3771. Bias and signal modeling for amplifier design. Large-signal, small-signal and DC amplifiers. Single-stage, multistage and power amplifiers. Frequency response. Applications with op amps such as amplifiers, comparators, filters, and oscillators. Computer-aided design and analysis.

**Prereq.:** ECEN 3771.

**ECEN 4803 Linear Control Systems 4 s.h.**

System modeling, responses and performance measures. Stability analysis by root locus, Bode, and Nyquist plots. Computer-aided control system design. Compensator design. Three hours lecture, three hours laboratory per week.

**Prereq.:** ECEN 2633, ECEN 3712, MATH 3705, MECH 2620.

**ECEN 4803L Linear Control Systems Laboratory 0 s.h.**

Linear Control Systems Laboratory.

**ECEN 4811 Senior Laboratory 1 s.h.**

Laboratory experiments and computer exercises in the areas of applied electromagnetics, energy conversion. Designed to accompany the co-requisite course.

**Prereq.:** ECEN 3712.

**Prereq. or concurrent:** ECEN 4844.

**ECEN 4844 Electromagnetic Energy Conversion 3 s.h.**

An examination of lumped electromagnetic parameters with development of theoretical, experimental, and design parameters for electrical energy conversion devices such as transformers, motors, and generators. Typical and special applications.

**Prereq.:** ECEN 3741 or concurrent: MECH 2620.

**ECEN 4851 VLSI System Design 3 s.h.**

Basic MOSFET models. Layout of inverters, NAND, NOR, PLA, PAL and ROMs. CMOS process and design rules. VLSI system design methodology and computer EDA tools such as PSpice and layout editors.

**Prereq.:** ECEN 3771, ECEN 3733.

**ECEN 4852 Neural Networks and Robotics 3 s.h.**

Principles for control applications and robotics, direct inverse control, neural networks, and fuzzy set theory. Applications including adaptive control, neural networks for motion control and path planning in robotics.

**Prereq.:** ECEN 3733.

**ECEN 4854 Principles of Electromagnetic Compatibility 3 s.h.**

Review of electromagnetic theories. Techniques of electromagnetic compatibility in electronic systems and computer hardware. Modeling and simulation of transmission lines and circuits. Electromagnetic discharge and grounding problems for high-frequency applications. Radio-frequency emissions from electronic devices. Shielding techniques to prevent ESD and EMI.

**Prereq.:** ECEN 3742 and MATH 3705.

**ECEN 4855 Advanced Digital Control 3 s.h.**

Fundamentals of sampled linear control systems, digital controllers and observers. Analysis techniques including difference and state-variable equations, transfer functions, transforms. Sampling, stability, and discrete approximation.

**Prereq.:** ECEN 3733.

**ECEN 4856 Embedded System Design 4 s.h.**

Fundamentals of small-scale and medium-scale embedded systems. Design techniques for processors, timers, input device interfacing, interrupt controllers, and drive circuits. Real-time operating system programming tools. Hardware-software co-designs. Three hours lecture, three hours laboratory.

**Prereq.:** ECEN 3733.

**ECEN 4881 Modern Control System Design 3 s.h.**

Advanced control system analysis and design. LQR, pole placement, state observer design. Introduction to system identification and adaptive controllers. MATLAB simulation and real-time implementation of controllers. Three hours lecture, three hours laboratory per week.

**Prereq.:** ECEN 4803.

**ECEN 4899 Senior Design Project 4 s.h.**

An electrical/computer engineering design problem is chosen or assigned; students work in teams. Proposals are presented which describe the design problem and approaches to it. The final design is presented in written and oral forms. This capstone course is intended to mimic a typical industrial or research project and includes ethical and economical considerations with the engineering work. Three hour lecture/discussion, three hours of laboratory per week.

**Prereq.:** ECEN 4811 and 27 s.h. of ECEN courses.

**Gen Ed:** Capstone.

**ECEN 4899L Senior Design Project Lab 0 s.h.**

Senior Design Project Lab.

**ECEN 5800 Special Topics 1-3 s.h.**

Special topics, new developments in Electrical Engineering. Subject matter, special prerequisites, and credit hours to be announced in advance of each offering. May be repeated with different subject matter to a maximum of 6 s.h.

**Prereq.:** Senior standing in Electrical and Computer Engineering.

**ECEN 5807 Advanced Digital and Analog Circuits 3 s.h.**

Chip circuitry for devices such as BJT, CMOS, and ECL-based digital logic chips. Switching devices such as SCRs, triacs, and timers. Switching power supplies. Power amplifiers. Applications and specifications of off-the-shelf IC devices. Computer-aided design and analysis.

**Prereq.:** ECEN 3772.

**ECEN 5808 Advanced Signals and Systems 3 s.h.**

Communication and control system modeling and simulations; signal analysis in continuous-time, discrete-time and frequency domains. Advanced communication system applications.

**Prereq.:** ECEN 3710 and MATH 3705.

**ECEN 5816 Theory and Fabrication of Solid-State Devices 3 s.h.**

An introductory study of physical theory, design, and fabrication of discrete devices and integrated circuits. Electronic properties of semiconductors such as carrier concentration, energy gap, mobility, lifetime. Techniques of fabrication such as oxidation, diffusion, alloying ion implantation, metallization, masking.

**Prereq.:** ECEN 3741 and ECEN 3771.

**ECEN 5817 Sensor Design and Application 3 s.h.**

Designs and applications for measurement and control; includes electro-chemical, -mechanical, -optical, and -thermal transducers. Signal conditioning and smart sensors.

**Prereq.:** ECEN 3771 or ECEN 3717.

**ECEN 5830 Digital Signal Processing 3 s.h.**

Discrete time signals and systems; discrete, fast, and inverse Fourier transforms. Digital filter analysis and design, digital signal processing applications. Two hours lecture, three hours laboratory.

**Prereq.:** ECEN 3710.

**ECEN 5835 Computer Architecture with VHDL 4 s.h.**

Use of hardware description languages to design computer components and systems. Arithmetic and logic units, control units, VHDL models for memories and busses, interfacing, transfer design. Survey of modern computer systems.

**Prereq.:** ECEN 3734.

**ECEN 5840 Electric Power Systems 4 s.h.**

Modeling of power system components. Power flow, faults, protection systems, and stability problems. Special projects and laboratory experiments including CAD applications for analysis, design, and simulation of power system networks. Three hours lecture, three hours laboratory per week.

**Prereq. or concurrent:** ECEN 4844.

**ECEN 5850 Communications Applications 3 s.h.**

Applicable technologies and "real-world" communication components and systems. Design and analysis tools. Emerging technologies, "killer apps", networking, data acquisition, and convergence.

**Prereq.:** ECEN 3710 or ECEN 5808.

**ECEN 5860 Energy Radiation and Propagation 3 s.h.**

Examination of dipole, loop aperture, reflector, lens, surface wave, traveling wave, and other antennas; array theory; radiation resistance, directivity, and input impedance. Investigation of theoretical and practical applications of fiber optics.

**Prereq.:** ECEN 3742 and 21 s.h. of ECEN courses.

**ECEN 5879 Computer-Aided Design 3 s.h.**

The design, analysis, and modeling of linear and nonlinear networks and systems using a simulation and modeling computer program. Development and use of library models of devices, subcircuits, and subsystems.

**Prereq.:** ECEN 2611 and 21 s.h. of ECEN courses.

**ECEN 5890 Power Electronics 4 s.h.**

SCRs, rectifier circuits, commutation techniques, AC controllers, converters, and inverters. Special projects and laboratory experiments including computer applications for analysis, design, and simulation of power electronics network. Three hours lecture, three hours laboratory per week.

**Prereq.:** ECEN 3771 and 21 s.h. of ECEN courses.

## Bachelor of Engineering in Electrical Engineering, Biomedical Track

### Summary for Traditional Option

COURSE	TITLE	S.H.
	Elec & Comp Engin	41
	Science	32
	Engineering <sup>1</sup>	11
	Math <sup>1</sup>	18
	Writing and Speech <sup>1</sup>	9
	General Education Courses <sup>1</sup>	18
<b>Total Semester Hours</b>		<b>129</b>

<sup>1</sup> See Curriculum section for courses in these areas that are common to the three options.

COURSE	TITLE	S.H.
<b>General Education Requirement</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Natural Sciences		6

Social Science		6
Social and Personal Awareness		6
General Education Elective		3
<b>Major Requirements</b>		
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 3711	Intermediate Laboratory 1	1
ECEN 3712	Intermediate Laboratory 2	1
Select one of the following:		3
ECEN 3710	Signals and Systems	
ECEN 3734	Computer Design	
ECEN 3772	Digital and Analog Circuits 2	
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 4803	Linear Control Systems	4
ECEN 4811	Senior Laboratory	1
ECEN 4844	Electromagnetic Energy Conversion	3
ECEN 4899	Senior Design Project	4
<b>Science</b>		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
The following two science courses are recommended for the biomedical option but do not count toward degree requirements:		
CHEM 3785	Biochemistry 1	
BIOL 3702	Microbiology	
<b>Math</b>		
Select 18 s.h. of MATH courses.		18
<b>Total Semester Hours</b>		<b>130</b>

## Courses Common to All Options

COURSE	TITLE	S.H.
<b>Engineering</b>		
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
MECH 2620	Statics and Dynamics	3
ISEN 3710	Engineering Statistics	3
<b>Total Hours</b>		<b>11</b>

<b>Mathematics</b>		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
MATH 3715	Discrete Mathematics	3
<b>Total Hours</b>		<b>18</b>

<b>Writing &amp; Speech</b>		
CMST 1545	Communication Foundations	3
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
<b>Total Hours</b>		<b>9</b>

<b>General Education (codes)</b>		
ECON 2610	Principles 1: Microeconomics (Social Science)	3
PHIL 2626	Engineering Ethics (Arts and Humanities)	3
	Arts and Humanities Elective	3
	Social Science Elective	3
	Social & Personal Awareness Elective	6
<b>Total Hours</b>		<b>18</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGL 1550	Writing 1	3
	General Education Requirement	3
MATH 1571	Calculus 1	4
<b>Semester Hours</b>		<b>17</b>

<b>Spring</b>		
MATH 1572	Calculus 2	4
ENGR 1560	Engineering Computing	2
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
ENGL 1551	Writing 2	3
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
<b>Semester Hours</b>		<b>17</b>

<b>Year 2</b>		
<b>Fall</b>		
MATH 2673	Calculus 3	4
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2611	Instrumentation and Computation Lab 1	1
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
PHIL 2626	Engineering Ethics	3
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
MATH 3705	Differential Equations	3
MATH 3715	Discrete Mathematics	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 2612	Instrumentation and Computation Lab 2	1
MECH 2620	Statics and Dynamics	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>

**Year 3****Fall**

ECEN 3711	Intermediate Laboratory 1	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3771	Digital and Analog Circuits 1	3
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
ISEN 3710	Engineering Statistics	3
<b>Semester Hours</b>		<b>17</b>

**Spring**

ECEN 3712	Intermediate Laboratory 2	1
ECEN 3734	Computer Design	3
or ECEN 3772	or Digital and Analog Circuits 2	
or ECEN 3710	or Signals and Systems	
ECEN 3742	Electromagnetic Fields 2	3
ECEN 4844	Electromagnetic Energy Conversion	3
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
ECON 2610	Principles 1: Microeconomics	3
<b>Semester Hours</b>		<b>17</b>

**Year 4****Fall**

ECEN 4811	Senior Laboratory	1
ECEN 4803	Linear Control Systems	4
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
General Education Requirement		3
<b>Semester Hours</b>		<b>15</b>

**Spring**

ECEN 4899	Senior Design Project	4
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
General Education Requirement		3
General Education Requirement		3
<b>Semester Hours</b>		<b>14</b>
<b>Total Semester Hours</b>		<b>129</b>

## Student Outcomes

To achieve the Program Educational Objectives after graduation, our students must attain the following Student Outcomes by the time of their graduation:

- An ability to apply knowledge of mathematics, science, and engineering.
- An ability to design and conduct experiments, as well as to analyze and interpret data.
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- An ability to function on multi-disciplinary teams.
- An ability to identify, formulate, and solve engineering problems.
- An understanding of professional and ethical responsibility.
- An ability to communicate effectively.
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- A recognition of the need for, and an ability to engage in life-long learning;

- A knowledge of contemporary issues.
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

## Bachelor of Engineering in Electrical Engineering, Computer/Digital Track Summary for Traditional Option

COURSE	TITLE	S.H.
Elec & Comp Engin		41
Computer Engineering/Science		19
Science		15
Engineering <sup>1</sup>		11
Math <sup>1</sup>		18
Writing and Speech <sup>1</sup>		9
General Education Courses <sup>1</sup>		18
<b>Total Semester Hours</b>		<b>131</b>

<sup>1</sup> See Curriculum Sheet for courses in these areas that are common to the three options.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Natural Sciences		6
Social Science		6
Social and Personal Awareness		6
General Education Elective		3
<b>Major Requirements</b>		
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 3710	Signals and Systems	3
ECEN 3711	Intermediate Laboratory 1	1
ECEN 3712	Intermediate Laboratory 2	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 4803	Linear Control Systems	4
ECEN 4811	Senior Laboratory	1
ECEN 4844	Electromagnetic Energy Conversion	3
ECEN 4899	Senior Design Project	4
<b>Computer Engineering/Science</b>		
CSIS 2610	Programming and Problem-Solving	4
CSIS 3700	Data Structures and Objects	4
ECEN 3734	Computer Design	3
<b>CSCI/ECEN Electives</b>		

Select 8 s.h. of approved CSCI/ECEN electives.	8
<b>Science</b>	
CHEM 1515 & 1515L	4
PHYS 2610 & 2610L	5
PHYS 3705	3
Science elective from approved courses	3
<b>Math</b>	
Select 18 s.h. of MATH courses.	18
<b>Total Semester Hours</b>	<b>132</b>

## Courses Common to All Options

COURSE	TITLE	S.H.
<b>Engineering</b>		
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
MECH 2620	Statics and Dynamics	3
ISEN 3710	Engineering Statistics	3
Total Hours		11
<b>Mathematics</b>		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
MATH 3715	Discrete Mathematics	3
Total Hours		18
<b>Writing &amp; Speech</b>		
CMST 1545	Communication Foundations	3
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
Total Hours		9
<b>General Education (codes)</b>		
ECON 2610	Principles 1: Microeconomics (Social Science)	3
PHIL 2626	Engineering Ethics (Arts and Humanities)	3
Arts and Humanities Elective		3
Social Science Elective		3
Social & Personal Awareness Elective		6
Total Hours		18
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
MATH 1571	Calculus 1	4
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGL 1550	Writing 1	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
MATH 1572	Calculus 2	4
ENGR 1560	Engineering Computing	2
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ENGL 1551	Writing 2	3

CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
MATH 2673	Calculus 3	4
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2611	Instrumentation and Computation Lab 1	1
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
General Education Requirement		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
MATH 3705	Differential Equations	3
MATH 3715	Discrete Mathematics	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 2612	Instrumentation and Computation Lab 2	1
MECH 2620	Statics and Dynamics	3
General Education Requirement		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
ECEN 3711	Intermediate Laboratory 1	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3771	Digital and Analog Circuits 1	3
CSIS 2610	Programming and Problem-Solving	4
ISEN 3710	Engineering Statistics	3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
ECEN 3712	Intermediate Laboratory 2	1
ECEN 3710	Signals and Systems	3
ECEN 3734	Computer Design	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 4844	Electromagnetic Energy Conversion	3
CSIS 3700	Data Structures and Objects	4
<b>Semester Hours</b>		<b>17</b>
<b>Year 4</b>		
<b>Fall</b>		
ECEN 4811	Senior Laboratory	1
ECEN 4803	Linear Control Systems	4
CSCI/ECEN Elective		4
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
ECON 2610	Principles 1: Microeconomics	3
General Education Requirement		3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
ECEN 4899	Senior Design Project	4
CSCI/ECEN Elective		4
Science Elective		3
General Education Requirement		3
General Education Requirement		3
<b>Semester Hours</b>		<b>17</b>
<b>Total Semester Hours</b>		<b>131</b>



## Student Outcomes

To achieve the Program Educational Objectives after graduation, our students must attain the following Student Outcomes by the time of their graduation:

- An ability to apply knowledge of mathematics, science, and engineering.
- An ability to design and conduct experiments, as well as to analyze and interpret data.
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- An ability to function on multi-disciplinary teams.
- An ability to identify, formulate, and solve engineering problems.
- An understanding of professional and ethical responsibility.
- An ability to communicate effectively.
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- A recognition of the need for, and an ability to engage in life-long learning;
- A knowledge of contemporary issues.
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

## Bachelor of Engineering in Electrical Engineering, Traditional Track

### Summary for Traditional Option

COURSE	TITLE	S.H.
Elec & Comp Engin		53
Science		15
Engineering <sup>1</sup>		11
Math <sup>1</sup>		18
Writing and Speech <sup>1</sup>		9
General Education Courses <sup>1</sup>		18
<b>Total Semester Hours</b>		<b>124</b>

<sup>1</sup> See Curriculum section for courses in these areas that are common to the three options.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies 12		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities 6		
Natural Sciences 6		
Social Science 6		
Social and Personal Awareness 6		
General Education Elective 3		
<b>Major Requirements</b>		
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 3710	Signals and Systems	3

ECEN 3711	Intermediate Laboratory 1	1
ECEN 3712	Intermediate Laboratory 2	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 3772	Digital and Analog Circuits 2	3
ECEN 4803	Linear Control Systems	4
ECEN 4811	Senior Laboratory	1
ECEN 4844	Electromagnetic Energy Conversion	3
ECEN 4899	Senior Design Project	4
<b>ECEN Electives</b>		
Select 9 s.h. of ECEN Electives.		9
<b>Science</b>		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
Science elective from approved courses		3
<b>Math</b>		
Select 18 s.h. of math courses.		18
<b>Total Semester Hours</b>		<b>125</b>

### Courses Common to All Options

COURSE	TITLE	S.H.
<b>Engineering</b>		
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
MECH 2620	Statics and Dynamics	3
ISEN 3710	Engineering Statistics	3
Total Hours		11
<b>Mathematics</b>		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
MATH 3715	Discrete Mathematics	3
Total Hours		18
<b>Writing &amp; Speech</b>		
CMST 1545	Communication Foundations	3
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
Total Hours		9
<b>General Education (codes)</b>		
ECON 2610	Principles 1: Microeconomics (Social Science)	3
PHIL 2626	Engineering Ethics (Arts and Humanities)	3
Arts and Humanities Elective		3
Social Science Elective		3
Social & Personal Awareness Elective		6
Total Hours		18

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MATH 1571	Calculus 1	4

ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGL 1550	Writing 1	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
MATH 1572	Calculus 2	4
ENGR 1560	Engineering Computing	2
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
MATH 2673	Calculus 3	4
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2611	Instrumentation and Computation Lab 1	1
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
General Education Requirement		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
MATH 3705	Differential Equations	3
MATH 3715	Discrete Mathematics	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 2612	Instrumentation and Computation Lab 2	1
MECH 2620	Statics and Dynamics	3
General Education Requirement		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
ECEN 3711	Intermediate Laboratory 1	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3771	Digital and Analog Circuits 1	3
ISEN 3710	Engineering Statistics	3
PHIL 2626	Engineering Ethics	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ECEN 3712	Intermediate Laboratory 2	1
ECEN 3710	Signals and Systems	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 3772	Digital and Analog Circuits 2	3
ECEN 4844	Electromagnetic Energy Conversion	3
ECON 2610	Principles 1: Microeconomics	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
ECEN 4811	Senior Laboratory	1
ECEN 4803	Linear Control Systems	4
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
ECEN elective		3
ECEN elective		3

General Education Requirement		3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
ECEN 4899	Senior Design Project	4
ECEN Elective		3
Science Elective		3
General Education Requirement		3
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>124</b>

## Student Outcomes

To achieve the Program Educational Objectives after graduation, our students must attain the following Student Outcomes by the time of their graduation:

- An ability to apply knowledge of mathematics, science, and engineering.
- An ability to design and conduct experiments, as well as to analyze and interpret data.
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- An ability to function on multi-disciplinary teams.
- An ability to identify, formulate, and solve engineering problems.
- An understanding of professional and ethical responsibility.
- An ability to communicate effectively.
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- A recognition of the need for, and an ability to engage in life-long learning;
- A knowledge of contemporary issues.
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

## Minor in Electrical and Computer Engineering

For students with little or no background:

COURSE	TITLE	S.H.
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2633	Basic Circuit Theory 2	3
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 3733	Digital Circuit Design	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 3711	Intermediate Laboratory 1	1
<b>Total Semester Hours</b>		<b>19</b>

For students with background in math or computer science:

COURSE	TITLE	S.H.
ECEN 1521L	Digital Circuits Laboratory	1
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2633	Basic Circuit Theory 2	3
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 3733	Digital Circuit Design	3
ECEN 3734	Computer Design	3
ECEN 3771	Digital and Analog Circuits 1	3

ECEN 3711	Intermediate Laboratory 1	1
<b>Total Semester Hours</b>		<b>19</b>

For students with background in physics:

COURSE	TITLE	S.H.
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ECEN 3710	Signals and Systems	3
ECEN 3733	Digital Circuit Design	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 3772	Digital and Analog Circuits 2	3
ECEN 4803 & 4803L	Linear Control Systems and Linear Control Systems Laboratory	4
<b>Total Semester Hours</b>		<b>20</b>

## Department of Engineering Technology

(330) 941-3287

The School of Engineering Technology offers "two-plus-two" programs in engineering technology. Students in these programs may work toward a two-year associate degree and then continue to earn a four-year bachelor's degree. The programs include both classroom and laboratory experiences that stress the application of established engineering and computer knowledge and methods to the solution of problems. They include study of the sciences and mathematics necessary to support a technology, as well as study of the methods, processes, skills, and materials used in that technology. The programs are designed to prepare graduates for job opportunities in industry and the public sector. Demands developed by an expanding technology place graduates of these programs in one of the fastest-growing occupational groups in the country.

### Associate of Technical Study Degree

The School of Engineering Technology offers an Associate of Technical Study (ATS) degree in

- Power Plant (Electrical Utilities) Technology.

Students in this program are awarded academic credit for skills-related experience and training to compliment the academic coursework at YSU.

### Associate of Applied Science Degree

The school offers two-year programs in:

- Civil and Construction Engineering Technology
- Electrical Engineering Technology
- Mechanical Engineering Technology

Graduates of these programs are awarded the Associate of Applied Science degree and may serve as engineering technicians.

Graduates of the associate degree programs are prepared to support scientists and engineers. Their work is in the design, drafting (CAD), development, testing, and production phases of engineering projects. Their tasks include laboratory testing, data gathering, evaluation, and instrument calibration. They may perform quality-control tests, serve as technical sales representatives, or serve as technical writers in the formulation of specifications or trade manuals.

Degrees in these programs may be earned in four semesters if students average 17-18 hours per semester.

## Bachelor of Science in Applied Science Degree

The civil and construction engineering technology, electrical engineering technology, and mechanical engineering technology programs are based on the "two-plus-two" educational system which provides the student with the flexibility of earning an associate degree and a bachelor's degree according to his or her needs. After completing the requirements of the associate degree, the student may elect to either enter industry or, through an added two years of full-time study (averaging 17 hours per semester) or equivalent part-time study, earn the Bachelor of Science in Applied Science (BSAS).

Graduates of the BSAS degree program obtain employment as engineering technologists or engineering designers for government agencies, consulting engineers and architects, industry and manufacturing, and contractors. Because their education is more extensive, they are prepared for more responsibility and more-rapid advancement. BSAS engineering technologists and designers plan, design, inspect, and direct construction, production, and maintenance activities.

Based on an evaluation of their work, transfer students who have a related associate degree from a regionally accredited institution may be admitted to the bachelor's degree program at the junior level.

### Accreditation and Registration

The civil and construction, electrical, and mechanical engineering technology associate and bachelor programs are accredited by the ETAC Accreditation Commission of ABET, <http://www.abet.org>. In most states, including Ohio, West Virginia and Pennsylvania, bachelor's degree graduates are qualified to take the Fundamentals of Engineering (FE) exam, and, with sufficient work experience, the Professional Engineers (PE) exam. Graduates are also qualified to apply to the National Institute for Certification in Engineering Technologies (NICET) for certification procedures in various specialty areas, depending on academic major and employment area.

### Admission Requirements

Admission to all School of Engineering Technology programs requires at least one year of high school algebra and one year of high school geometry with grades of "C" or better. Transfer students must be in good standing at their previous institution. All freshmen must take the Mathematics Placement Test prior to admission into the School of Engineering Technology.

Students not meeting the admission requirements are enrolled as pre-majors in the College of Science, Technology, Engineering, and Mathematics. While advising is provided by professional advisors within the college, these students are also encouraged to see the coordinator of the program in which they are interested for further orientation.

Qualified engineering technology students must enroll in the ENTC 1505 Engineering Technology Concepts courses. It is designed to acquaint students with the nature of this career area, and therefore assist prospective students in determining the level of their interest. ENTC 1505 Engineering Technology Concepts is required of all engineering technology majors.

### Power Plant (Electrical Utilities) Technology

This program prepares graduates to perform basic operating functions required in electric utility power plants and other related industries. Students gain knowledge in:

- electrical theory
- electrical machinery and controls
- power plant operations
- boiler, turbine, and generator operations

- power plant instrumentation
- pollution control equipment

In addition, college writing, oral communications, and general education form an integral part of the program. Upon successful completion of the program, students are prepared for entry-level employment in the utility industry.

For more information, visit **Power Plant (Electrical Utilities) Technology**.

## Civil and Construction Engineering Technology

Students in the civil and construction engineering technology (CCET) program may choose to complete two years of study and earn an Associate of Applied Science (AAS) degree. The AAS degree provides early access to employment in engineering support positions. Upon completion of the AAS degree, the student may continue on for the Bachelor of Science in Applied Science (BSAS) degree. This program provides additional coursework, continuing the student's growth to that of an engineering technologist or designer. Exceptional students may be eligible for enrollment in a Master of Engineering or Master of Business Administration program. Students interested in construction may choose a certificate program in construction management.

### Program Educational Objectives

Educational objectives for the civil and construction engineering technology programs have been developed by faculty and the program industrial advisory committee to support the university, college, and School of Engineering Technology missions. Graduates of the CCET associate degree program are prepared to support civil engineers in:

- structural design
- public works
- construction
- inspection
- transportation
- environmental engineering

Bachelor's degree graduates are prepared to assist with planning, design, inspection, and direction of the construction of projects involving buildings, roads, dams, bridges, airports, and wastewater treatment facilities.

During their first few years after earning the civil and construction engineering technology degree at YSU, graduates will have demonstrated the ability to:

- Secure employment in a technical career related to their civil and construction engineering technology degree.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.
- Achieve recognition consistent with their educational achievements.

### Program Outcomes

Graduates in civil and construction engineering technology will achieve the following learning outcomes by the time they graduate:

#### Associate of Applied Science Degree Program

Graduates of the associate degree in civil and construction engineering technology will possess the following competencies upon graduation:

- **Learning Outcome 1:** use graphic techniques to produce engineering documents and use modern instruments, methods, and techniques to implement construction contracts, documents, and codes
- **Learning Outcome 2:** conduct standardized field/laboratory testing on civil engineering materials and evaluate materials/methods for construction projects
- **Learning Outcome 3:** utilize modern surveying methods for land measurement and/or construction layout

- **Learning Outcome 4:** determine forces and stresses in elementary structural systems
- **Learning Outcome 5:** estimate material quantities and costs for technical projects
- **Learning Outcome 6:** employ productivity software to solve technical problems

### Bachelor of Science in Applied Science Degree Program

Graduates of the bachelor degree in civil and construction engineering technology will possess the following competencies upon graduation.

- **Learning Outcome 1:** ability to plan, prepare, and utilize design, construction, and operations documents, such as specifications, contacts, change orders, engineering drawings, and construction schedules
- **Learning Outcome 2:** perform economic analyses and cost estimates related to design, construction, operations, and maintenance of systems related to civil and construction engineering
- **Learning Outcome 3:** ability to select appropriate construction and engineering materials/practices
- **Learning Outcome 4:** (Construction Engineering Technology) ability to apply principles of construction law and ethics
- **Learning Outcome 5:** apply basic technical concepts related to the civil and construction engineering technology field; such as hydraulics, hydrology, geotechnics, structures, material behavior, transportation systems, and water and wastewater systems
- **Learning Outcome 6:** perform standard analysis/design in at least one technical specialty within civil and construction engineering technology

## Electrical Engineering Technology

Students in the electrical engineering technology (EET) program may choose to complete two years of study and earn an Associate of Applied Science (AAS) degree. The AAS provides early access to employment in engineering support positions. Upon completion of the AAS degree, the student may continue on for the Bachelor of Science in Applied Science (BSAS) degree. This program provides additional coursework, continuing the student's growth to that of an engineering technologist or designer. Exceptional students may be eligible for enrollment in a Master of Engineering or Master of Business Administration program.

### Program Educational Objectives

Educational objectives for the electrical engineering technology programs have been developed by faculty and the program industrial advisory committee to support the university, college, and School of Engineering Technology missions. Graduates of the EET associate degree program generally function as assistants to electrical engineers in the design, analysis, and laboratory testing of electrical and electronic systems and of rotating machinery. Bachelor degree graduates are prepared to assist in the design and testing of electrical systems and may function independently in some areas.

During their first few years after earning the electrical engineering technology degree at YSU, graduates will have demonstrated the ability to:

- Secure employment in a technical career related to their Electrical Engineering Technology degree.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.
- Achieve recognition consistent with their educational achievements.

### Program Outcomes

Graduates in electrical engineering technology will achieve the following learning outcomes by the time they graduate:

#### Associate of Applied Science

Graduates of the Associate Degree EET program will possess the following competencies upon graduation.

- **Learning Outcome 1:** be able to apply principles of mathematics and applied science, to perform technical calculations and solve technical problems of the types commonly encountered in electrical engineering technology careers
- **Learning Outcome 2:** demonstrate the ability to identify, formulate, and present creative solutions to technical problems in a variety of specialty areas within the broad fields of electrical engineering technology
- **Learning Outcome 3:** be able to function competently in a laboratory setting, making measurements, operating technical equipment, critically examining experimental results, and properly reporting on experimental results, including their potential for improvement.
- **Learning Outcome 4:** be able to use modern computational tools for technical problem solving, including scientific calculators, computers, and appropriate software.
- **Learning Outcome 5:** demonstrate a broad education and knowledge of contemporary issues in a global and societal context, as necessary to develop professional and ethical responsibility, including responsibility to employers and to society at large
- **Learning Outcome 6:** recognize the need for life-long learning and possess the skills to maintain and improve technical and non-technical abilities
- **Learning Outcome 7:** demonstrate an ability to communicate and function effectively with members of multi-disciplinary teams from a variety of backgrounds.
- **Learning Outcome 8:** demonstrate an ability to utilize computer software applications used in electrical engineering technology such as CAD, spreadsheets, word processing, and basic programming

### Bachelor of Science in Applied Science

Graduates of the bachelor's degree EET program will possess the following competencies upon graduation.

- **Learning Outcome 1:** be able to apply principles of mathematics and applied science, to perform technical calculations and solve technical problems of the types commonly encountered in electrical engineering technology careers
- **Learning Outcome 2:** demonstrate the ability to identify, formulate, and present creative solutions to technical problems in a variety of specialty areas within the broad fields of electrical engineering technology.
- **Learning Outcome 3:** be able to function competently in a laboratory setting, making measurements, operating technical equipment, critically examining experimental results, and properly reporting on experimental results, including their potential for improvement
- **Learning Outcome 4:** be able to use modern computational tools for technical problem solving, including scientific calculators, computers, and appropriate software.
- **Learning Outcome 5:** demonstrate a broad education and knowledge of contemporary issues in a global and societal context, as necessary to develop professional and ethical responsibility, including responsibility to employers and to society at large.
- **Learning Outcome 6:** recognize the need for life-long learning and possess the skills to maintain and improve technical and non-technical abilities
- **Learning Outcome 7:** demonstrate an ability to communicate and function effectively with members of multi-disciplinary teams from a variety of backgrounds
- **Learning Outcome 8:** the ability to identify, formulate, and solve engineering problems in the following major electrical engineering technology disciplines: analog and digital electronics, communication systems, power, aerospace and computer systems.
- **Learning Outcome 9:** the knowledge of professional practice issues, with an understanding of social responsibilities and a respect for diversity

### Associate Degree Program

Graduates of the two-year electrical engineering technology program generally function as assistants to electrical engineers in the design, analysis, and laboratory testing of electrical and electronic systems and of rotating

machinery. Most graduates are employed by electrical and electronic equipment manufacturers, utility companies, the aerospace industry, and manufacturing companies in general.

### Bachelor's Degree Program

The bachelor's degree program in electrical engineering technology prepares students for employment as engineering technologists or engineering designers. The students focus on analog and digital electronics communication systems, smart grid and power distribution, and computer networking systems. Co-op programs with various local companies enable EET students to gain experience and income during their junior and senior years. Many students work full or part-time while completing the BSAS degree taking evening classes. Students are encouraged to take the Fundamentals of Engineering (FE) exam as the first step toward professional registration.

## Mechanical Engineering Technology

The mechanical engineering technology (MET) program is designed as a "two-plus-two" program. Students may earn an Associate of Applied Science degree after two years of full-time study. With this degree, they may begin a career in industry. The associate degree graduate can continue for two more years of full-time study to earn the bachelor's degree.

### program Educational Objectives

Educational objectives for the MET programs have been developed by faculty and the program industrial advisory committee to support the university, the college, and the School of Engineering Technology missions. Graduates of the MET associate degree program function as assistants in the design, drafting and testing of mechanical products, equipment and processes. Bachelor's degree graduates assume greater responsibility in the design and testing of mechanical products, processes, and equipment.

During their first few years after completion of the mechanical engineering technology program at YSU, graduates will have demonstrated the ability to:

- Work competently in technical and professional careers related to the field of mechanical engineering technology.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.
- Achieve recognition and/or compensation consistent with their educational achievements.

### Program Outcomes

Associate of Applied Science

Graduates of the associate degree MET program will possess the following competencies upon graduation:

- mastery of knowledge, skills, and tools of the discipline
- ability to apply knowledge to solve engineering problems
- ability to conduct, analyze, and interpret experiments
- ability to work effectively in teams
- ability to identify, analyze, and solve technical problems
- ability to communicate effectively
- recognition of the need for professional development
- ability to understand professional, ethical, social, and diversity responsibilities
- commitment to quality, timeliness, and continuous improvement

Bachelor of Science in Applied Science

Graduates of the bachelor's degree MET program will possess the following competencies upon graduation:

- mastery of knowledge, skills, and tools of the discipline
- ability to apply knowledge to solve engineering problems

- ability to conduct, analyze, and interpret experiments
- ability to design systems, components, and processes
- ability to work effectively in teams
- ability to identify, analyze, and solve technical problems
- ability to communicate effectively
- recognition of the need for professional development
- ability to understand professional, ethical, social, and diversity responsibilities
- knowledge of engineering solutions in a societal and global context
- commitment to quality, timeliness, and continuous improvement

#### Chair

**Carol M. Lamb**, D.B.A., Associate Professor, Chair

#### Professor

**Joshua Blackann**, M.S., Assistant Professor

**Theodore R. Bosela**, Ph.D., Professor

**Michael D. Costarell**, M.S.M.E., Associate Professor

**Robert J. Korenic**, M.S.E., Associate Professor

**John D. Martin**, M.S., Assistant Professor

**Kin Ping Moy**, M.S., Professor

**Joseph S. Sanson**, M.S., Assistant Professor

**Brian D. Vuksanovich**, M.S.M.E., Associate Professor

**Jason Zapka**, M.S., Assistant Professor

#### Instructor

**Daniel P. Coyne**, B.A., Instructor

## Majors

- Power Plant (Electrical Utilities) Technology Associate of Technical Studies (p. 527)
- Civil and Construction Engineering Technology Associate Degree Program (p. 523)
- Civil and Construction Engineering Technology Bachelor's Degree Program (p. 527)
- Electrical Engineering Technology Associate Degree Program (p. 524)
- Electrical Engineering Technology Bachelor's Degree Program (p. 530)
- Mechanical Engineering Technology Associate Degree Program (p. 526)
- Mechanical Engineering Technology Bachelor's Degree Program (p. 531)

## Minors

- Minor in Electrical Engineering Technology (p. 533)

## Civil and Construction Engineering Technology

### CCET 1503 CAD Technology 2 s.h.

Basic instruction in the use of AutoCAD computer-aided drafting system. Includes primary 2D skills including dimensioning, blocks, external reference and plotting. Customization methods and an introduction to application programming. One and one-half hours lecture, one and one-half hours lab per week. Grading is A, B, C, NC.

**Prereq.:** or Corequisite MATH 1513 or at least Level 40 on the Mathematics Placement test.

**Concurrent with:** CCET 1504.

### CCET 1504 Drafting and Plan Reading 2 s.h.

Drafting basics including plan, section, and elevation views; orthographic projections; line types and weights; drafting scales; dimensioning; tolerances; grading and contours, and construction layout for the civil, mechanical, and electrical technology disciplines. Development of skills in the interpretation and preparation of plans used for civil, mechanical, and electrical construction and fabrication. One and one-half hours lecture, one and one-half hours laboratory per week. Grading is A, B, C, NC.: MATH 1513 or at least Level 40 on the Mathematics Placement test.

**Prereq.:** Coreq.

**Concurrent with:** CCET 1503.

### CCET 2604 Properties and Strength of Materials 3 s.h.

Introduction to the physical and chemical properties of materials and their behavior under various loads and environments. Concepts of stress and strain developed and evaluated for the application of axial, shear, torsional, and bending loads.

**Prereq.:** ENTC 1505 and MATH 1513 grade of "C" or better.

**Prereq. or concurrent:** MET 1515.

### CCET 2607 Civil 3D 3 s.h.

Civil 3D is a course intended to prepare students for entry-level production use of AutoCAD Civil 3D 2015. The primary goal of this class is to teach students how to use the software, but it is also an opportunity to show them how projects are executed and what types of roles they will play in completing them.

**Prereq.:** CCET 1503 and CCET 1504.

### CCET 2614L Materials Laboratory 1 2 s.h.

Use and care of testing equipment, data retrieval, data reduction and report preparation. Physical testing of metals, concrete, aggregates, asphalts, soils and woods. Three hours per week.

**Prereq or concurrent:** CCET 2604.

### CCET 2617 Construction Methods and Materials 3 s.h.

Basic properties of construction materials. Processing and placement methods. Purchase, use and replacement of construction equipment. Application of engineering economics to construction. Use of building codes.

**Prereq.:** CCET 2604, MET 1515 both with a grade of "C" or better.

### CCET 2620 Transportation Technology 3 s.h.

Transportation planning and highway system design. Familiarization with AASHTO design manuals; geometric design and signalization of highway segments; capacity analysis and route selection. Cost-benefit analysis for transportation projects.

**Prereq.:** CCET 2604.

### CCET 3705 Computing for Technologists 3 s.h.

Development of computer techniques used in solutions to problems in all fields of engineering technology. Students write computer programs to solve problems with which they are familiar. Use of database management, spreadsheets. May be taken by non-CCET majors. Two hours lecture, three hours lab per week.

**Prereq.:** MATH 1570 grade of "C" or better and junior standing or consent of instructor.

### CCET 3706 Structural Design 4 s.h.

Structural design using AISC, ACI and similar codes. Selection of members and connections in accordance with manuals and code specifications. Design and AutoCAD projects required. Three hours lecture and three hours computational lab per week.

**Prereq.:** DDT 1503, DDT 1504, MET 1515, MATH 1513, CCET 2604.

### CCET 3708 Building Information Modeling 3 s.h.

Introduction and applications of Autodesk Revit 3D CAD program. Use of Revit software to assemble a complete building information model of a building and use the model to coordinate systems between disciplines, to create material take-offs, construction documents, and presentation drawings. Two hours lecture, three hours lab per week.

**Prereq.:** "C" or better in CCET 3706.

### CCET 3708L Building Information Modeling Laboratory 0 s.h.

Building Information Modeling Laboratory.

**CCET 3709 Structural Analysis 1 3 s.h.**

Fundamental determination of member forces in trusses, beams, arches, frames and cables. Calculation of member stresses and deflections. Two hours lecture, three hours computational lab per week.

**Prereq.:** ENTC 1505, MATH 1513, CCET 2604, all with a grade of "C" or better.

**CCET 3711 Specifications and Estimating 3 s.h.**

Fundamentals of writing and interpreting specifications for materials and construction methods. Estimating materials and labor costs for construction projects. Use of computer estimating packages. Two hours lecture and three hours computational laboratory.

**Prereq.:** ENTC 1505, MATH 1513, CCET 2604, MET 1515 all with grade of "C" or better.

**CCET 3714 Soil Mechanics 2 s.h.**

A study of soil properties, classifications, strength and behavior. Theory of consolidation, shear strength and stability analysis. Two hours lecture per week.

**Prereq.:** CCET 2614L, CCET 3706, CCET 3709.

**Concurrent with:** CCET 3714L.

**CCET 3714L Soil Mechanics Laboratory 1 s.h.**

Practice in soil identification and determination of soil properties. Use and care of basic soil testing equipment and standard test procedures. Three laboratory hours per week.

**Concurrent with:** CCET 3714.

**CCET 3719 Environmental Impact of Abandoned Mines 3 s.h.**

Mining methods, types of mines, information retrieval, mine stabilization, and the effects of abandoned mines on environmental and human activities, especially deep coal mines in the Mahoning Valley and adjacent areas. Two hours lecture and three hours of lab per week. Prereq. GEOL 1505 or equivalent or permission of instructor.

**CCET 3724 Hydraulics and Land Development 3 s.h.**

Study of hydraulics and hydrologic principles and their applications to drainage requirements, storm-water management, detention/retention basin design, erosion and sedimentation control plans and land-use planning. Use of computer software for analysis and design. Two hours lecture, three hours of computational lab per week.

**Prereq.:** DDT 1503, DDT 1504, ENTC 1505, MATH 1513, CCET 2604, MET 1515 all with a grade of "C" or better.

**CCET 3735 Heavy Highway Technology 3 s.h.**

Study of principles of heavy highway construction as it relates to the current highway system. The reading and comprehension of highway construction plans and specifications.

**Prereq.:** CCET 2620.

**CCET 3740 Construction Management 3 s.h.**

Design and construction office planning and scheduling techniques. Introduction to computer methods for program planning and updating. Financial, labor, and material resource allocation and tracking. Construction reports, contracts, specifications and general conditions. Relationships among owner, architect/engineer, and constructor.

**Prereq.:** "C" or better in CCET 3711.

**CCET 4807 Project Planning & Scheduling 3 s.h.**

Application of planning, scheduling, and control system techniques for an integrated project including theory, options, legal implications, and practices. Students plan and schedule projects using CPM computer software and set up control systems for the project. Three hours lecture, one hour laboratory per week.

**Prereq.:** "C" or better in CCET 3711.

**CCET 4809 Structural Analysis 2 3 s.h.**

Continuation of CCET 3709. Analysis techniques for common structures. Introduction to classical approaches to statically indeterminate structures and calculation of deflections. Use of standard computer programs such as StruCalc, SAP and SABLE. Three hours lecture, one hour computational lab per week.

**Prereq.:** "C" or better in both CCET 3709 and MATH 1570.

**CCET 4810 Construction Surveying 3 s.h.**

Theory and applications of advanced land surveying techniques for: route surveying and geometric design; topographic site surveys and mapping; civil engineering, utilities, and construction surveys; global positioning systems; and quantities and final surveys. Two hours lecture and three hours field surveying laboratory.

**Prereq.:** CEEN 2610, CEEN 2610L.

**CCET 4812 Concrete Design 3 s.h.**

Behavior and design of concrete elements subject to flexure, shear, axial and combined effects. Emphasis on reinforced concrete design in accordance with the ACI Code including beams, T-beams, slabs, walls, and columns. An introduction to prestressed and precast concrete design. Three hours lecture, one hour design lab per week.

**Prereq.:** "C" or better in both CCET 3706 and CCET 3709.

**CCET 4813 Steel Design 3 s.h.**

Loading and behavior of steel structures and design of standard rolled shapes in accordance with current LRFD and ASD specifications. Design of welded and bolted connections and an introduction to design of cold-formed steel members. Three hours lecture, one hour design lab per week.

**Prereq.:** "C" or better in both CCET 3706 and CCET 3709.

**CCET 4814 Foundation Design 3 s.h.**

Application of soil mechanics to the design of foundations. Topics include spread footings, drilled piers, piles, retaining walls, sheet piles walls and underground structures. Three hours lecture per week.

**Prereq.:** CCET 3714 and CCET 3714L.

**CCET 4815 Masonry Design 3 s.h.**

Design of beams, columns, shear walls and bearing walls using clay and concrete masonry units. Application of allowable stress design (ASD) and strength design (SD) in accordance with the MSJC Building Code Requirements for Masonry Structures. Additional topics include prestressed and autoclaved aerated concrete (AAC) masonry. Three hours lecture, one hour lab per week.

**Prereq.:** "C" or better in both CCET 3706 and CCET 3709.

**CCET 4816 Timber Design 3 s.h.**

Design of beams, poles, piles, diaphragms, shear walls and fasteners using timber elements. Application of the National Design Specification for Wood Construction that incorporates a dual format using both allowable stress design (ASD) and load and resistance factor design (LRFD). Additional topics include glued-laminated members and design of mechanical connectors. Design, analysis, construction, and testing of scale models is required. Three hours lecture, one hour lab per week.

**Prereq.:** "C" or better in both CCET 3706 and CCET 3709.

**CCET 4824 Environmental Technology 3 s.h.**

Application of environmental principles to land planning and development. Wastewater treatment processes and system design. Application of water and wastewater management to specific sites. Permitting and endangerment assessment. Three hours lecture, one hour computational lab per week.

**Prereq.:** "C" or better in CCET 3724 and junior standing.

**CCET 4884 Civil/Structural Facilities Design 3 s.h.**

Interdisciplinary capstone course. An overview of the requirements and design procedures for civil and structural systems. Includes the analysis and design for site development, utilities, foundation, wall systems, framing systems, floor system and the preparation of the plans, specifications and estimate package. Includes a major interdisciplinary group project.

**Prereq.:** Senior standing in CCET or EET permission of instructor.

**Concurrent:** EET 4810.

**CCET 4890 Special Topics in Civil and Construction Engineering Technology 1-4 s.h.**

New developments in CCET. Subject matter, special prerequisites, and credit hours to be announced in advance of each offering. May be repeated with different subject matter to a maximum of 8 s.h.

**Prereq.:** Senior standing in CCET or consent of the instructor.

# Electrical Engineering and Technology

## EET 1501 Circuit Theory 1 3 s.h.

Theoretical analysis of DC electrical circuits including units conversions, current voltage, power, Ohms Law, Kirchhoffs Laws, network theorems, capacitance, magnetic circuits, inductance and transient analysis of RL and RC circuits. Prerequisite or concurrent: ENTC 1505, MATH 1513 or MATH 1510 and MATH 1511; concurrent with EET 1501L. 3 s.h.

## EET 1501L Circuit Theory 1 Lab 1 s.h.

Use of electrical components to construct circuits and use of electrical instrumentation including meters and oscilloscopes to analyze DC resistive series/parallel networks and basic RC & RL transient circuits. Computer circuit analysis with PSPICE. Three hours per week.

**Concurrent with:** EET 1501.

## EET 1502 Circuit Theory 2 3 s.h.

Study of AC sinusoidal waveforms, phasor representations, phasor algebra and phasor diagrams. Solution of steady state single phase series/parallel networks including network theorems, power and power factor, resonant circuits, filters, mutual inductance, transformers and balanced three-phase systems.

**Prereq.:** "C" or better in EET 1501 and EET 1501L and MATH 1513, or MATH 1510 and MATH 1511, and ENTC 1505.

**Concurrent with:** EET 1502L.

## EET 1502L Circuit Theory 2 Lab 1 s.h.

Measure effective values of AC currents and voltages, observe waveforms with oscilloscopes, verify impedance concepts and phasor diagrams for AC series/parallel networks and resonant circuits. Computer circuit analysis with PSPICE. Three hours per week.

**Concurrent with:** EET 1502.

## EET 2605 Electronics 1 3 s.h.

Physical basis of semiconductor materials, diodes, rectifier circuits, Zener diode regulators, clippers, clampers, special purpose diodes. Bipolar junction transistors (BJT) characteristics, bias circuits, equivalent circuit models, amplifiers and field effect transistor (FET) characteristics.

**Prereq.:** EET 1502 and EET 1502L or concurrent; "C" or better in the following: MATH 1513, or (MATH 1510 and MATH 1511).

**Concurrent with:** EET 2605L.

## EET 2605L Electronics 1 Laboratory 1 s.h.

Use of meters, oscilloscope, transistor curve tracer for experiments on diode characteristics, rectifier circuits, clippers, clampers, Zener regulators, BJT and FET characteristics, BJT bias circuits and amplifiers. Computer circuit analysis with PSPICE. Three hours per week.

**Concurrent with:** EET 2605.

## EET 2620 Digital Electronics 2 s.h.

An introductory study of number systems and conversions, codes, Boolean algebra, and logic gates. Includes Boolean function simplification, truth tables, Karnaugh maps, and combination circuits.

**Prereq.:** "C" or better in MATH 1513 or MATH 1510 and MATH 1511, and EET 1501 and EET 1501L, and ENTC 1505.

**Concurrent with:** EET 2620L.

## EET 2620L Digital Electronics Lab 1 s.h.

Experiments utilizing digital integrated circuits to implement various logic functions discussed in EET 2620. Three hours per week.

**Concurrent with:** EET 2620.

## EET 2653 Fiber Optics 3 s.h.

Light propagation in fiber; connections, attenuation, and signal distortion; splicing and analysis of coupling losses; optical transmitters and receivers for analog and digital signals. Two hours lecture, three hours lab per week.

**Prereq.:** "C" or better in EET 1502 and EET 1502L and EET 2605 and EET 2605L and MATH 1570.

## EET 3700 Methods in Circuit Analysis 3 s.h.

Review of circuit analysis techniques using phasor algebra; mesh and nodal analysis; Thevenin and Norton equivalents; superposition theorem; three phase circuits; circuit solutions using matrix methods; and Fourier analysis of periodic waveforms with applications to circuit analysis. Two hours lecture and three hours computational lab per week. Taken concurrently with MATH 2670.

## EET 3701 Transform Circuit Analysis 3 s.h.

Introduction to LaPlace transforms and the use of LaPlace transforms in circuit analysis, transfer functions, frequency response of networks, poles and zeroes, stability, Bode plots. Two hours lecture and three hours of computational lab per week.

**Prereq.:** MATH 2670 and EET 3700 with a grade of "C" or better.

## EET 3706 Electronics 2 3 s.h.

Field effect transistor (FET) bias circuits and amplifiers, thyristor circuits, frequency effects (Bode plots), differential amplifiers, linear and non-linear op amp circuits, active filters, oscillators and regulated power supplies.

**Prereq.:** "C" or better in EET 1502 and EET 1502L and EET 2605 and EET 2605L and MATH 1570.

**Concurrent with:** EET 3706L.

## EET 3706L Electronics 2 Laboratory 1 s.h.

Experiments involving field effect transistors (FETs), integrated circuits (ICs), operational amplifiers, frequency effects on gain, oscillator circuits and regulated power supplies. Computer circuit analysis with PSPICE. Three hours per week.

**Concurrent with:** EET 3706.

## EET 3710 Electrical Machines 3 s.h.

Construction, operating principles and characteristics, efficiency and control of DC motors, generators, and specialized machines. AC single and 3-phase transformers, alternators, induction and synchronous motor principles, characteristics, efficiency and control.

**Prereq.:** "C" or better in EET 1502 and EET 1502L and ENTC 1505 and MATH 1570.

**Concurrent with:** EET 3710L.

## EET 3710L Electrical Machines Lab 1 s.h.

Experiments with DC motors and generators and AC transformers, alternators, induction and synchronous motors to observe operation, efficiency, control and machine characteristics. Three hours per week.

**Concurrent with:** EET 3710.

## EET 3712 Programmable Logic Controllers 3 s.h.

Development of ladder logic programming and application to programmable logic controllers (PLCs). Examination of input/output (I/O) device characteristics and interfacing including both digital and analog I/O.

Installation, maintenance and safety practices for PLCs.

**Prereq.:** "C" or better in EET 1502 and EET 1502L and EET 2620 and EET 2620L and EET 3710 and EET 3710L and MATH 1513.

**Concurrent with:** EET 3712L.

## EET 3712L PLC Laboratory 1 s.h.

Exercises in ladder logic programming for programmable logic controllers (PLCs) using concepts developed in EET 3712. Input/Output (I/O) concepts related to PLCs. Three hours per week.

**Concurrent with:** EET 3712.

## EET 3725 Electromechanical Systems 3 s.h.

AC/DC circuit analysis techniques including network theorems, MultiSim computer circuit analysis with applications to AC/DC machinery, electronics, digital circuits and control systems. Three hours lecture per week.

**Prereq.:** C or better in MATH 1570 and ENTC 1505.

**Concurrent with:** EET 3725L.



**EET 3725L Electromechanical Systems Lab 1 s.h.**

Lab experiences to accompany EET 3725 Electromechanical Systems. Topics include lab safety, resistor color code, DC and AC circuits, oscilloscope and function generator, diode rectifiers, transistor switching circuits and amplifiers, three phase power measurements, transformer testing, DC and AC motor characteristics.

**Prereq.:** C or better in the following: MATH 1570, ENTC 1505.

**Concurrent with:** EET 3725.

**EET 3730 Logic Systems Design 3 s.h.**

The characteristics and applications of integrated circuit logic families and various memory devices. Emphasis on the design of digital systems with SSI, MSI, and LSI as system components.

**Prereq.:** "C" or better in EET 2620 and EET 2620L and EET 2605 and EET 2605L and EET 1502 and EET 1502L and MATH 1570.

**Concurrent with:** EET 3730L.

**EET 3730L Logic Systems Design Lab 0 s.h.**

Laboratory exercises dealing with applications of concepts developed in EET 3730. Three hours per week.

**Concurrent with:** EET 3730.

**EET 3735 Microprocessor Architecture and Programming 3 s.h.**

An introduction to microprocessor architecture, memory organization, and input/output addressing. Emphasis on machine/assembly language programming to teach concepts of buses, machine cycles, and internal data flow. Two hours lecture and three hours of lab per week.

**Prereq.:** "C" or better in CSIS 1590 or EET 1501 and EET 1501L and EET 2620 and EET 2620L and MATH 1513.

**EET 3735L Microprocessor Architecture and Programming Laboratory 0 s.h.**

Microprocessor Architecture and Programming Laboratory.

**EET 3745 Microprocessor Systems 2 3 s.h.**

Continuation of EET 2645 with emphasis on advanced programming techniques, memory mapping, I/O ports, and basic I/O interfacing.

**Prereq.:** "C" or better in EET 3735 and EET 3735L and EET 1502 and EET 1502L and MATH 1513.

**Concurrent with:** EET 3745L.

**EET 3745L Microprocessor Systems 2 Lab 0 s.h.**

Laboratory exercises utilizing a microcomputer to provide practical applications of concepts developed in EET 3745. Three hours per week.

**Concurrent with:** EET 3745.

**EET 3760 Variable Speed Drives 3 s.h.**

Introduction to electronic speed control of direct and alternating current motors. Power conversion and waveform modulation techniques, drive sizing, harmonics, and motor performance.

**Prereq.:** "C" or better in EET 3710 and EET 3710L and EET 3706 and EET 3706L, EET 3700, and MATH 2670.

**Concurrent with:** EET 3760L.

**EET 3760L Variable Speed Drives Lab 0 s.h.**

Exercises in variable speed drive applications, demonstrating the concepts developed in EET 3760.

**Concurrent with:** EET 3760.

**EET 3780 Communication Systems 3 s.h.**

Audio signals, noise, untuned and RF amplifiers, amplitude, frequency, pulse modulation, transmission lines, antennas, and multiplexing of communication channels.

**Prereq.:** "C" or better in the following: EET 1502, EET 1502L, EET 3706, EET 3706L, EET 3700, and MATH 2670.

**Concurrent with:** EET 3780L.

**EET 3780L Communication Systems Lab 0 s.h.**

Laboratory exercises dealing with application of concepts developed in EET 3780. Three hours per week.

**Concurrent with:** EET 3780.

**EET 4810 Electrical System Design 3 s.h.**

The design and layout of electrical systems for power, light, heat, signals, and communications in commercial, industrial, and residential buildings. Two hours lecture, three hours of lab per week.

**Prereq.:** EET 3710 and EET 3710L or EET 3725 and EET 3725L, with grade of C or better.

**EET 4815 Power System Studies 3 s.h.**

Introduction to electrical power system studies including system modelling, load flow and voltage drop, short circuit, protective device coordination, motor transient starting, power quality, and arc flash calculations. Two hours lecture and three hours computational lab per week.

**Prereq.:** EET 3710 and EET 3710L and EET 3700 and MATH 2670 all with grades of "C" or better.

**EET 4817 High Voltage Design 3 s.h.**

Design of medium and high voltage electrical power systems commonly found in large industrial and commercial facilities, and electric utility systems. Course content focuses on the design of overhead and underground systems, and equipment application in accordance with the National Electrical Safety Code (NEC). Two hours lecture and three hours computational lab per week.

**Prereq.:** EET 3710 and EET 3710L and EET 3700 and MATH 2670 all with grades of "C" or better.

**EET 4820 Power System Protection and Control 3 s.h.**

An introduction to electrical power system protection and control utilizing intelligent smart grid technologies. Topics include power system analysis, real time data acquisition and control, synchrophasor measurements, communications, and application of microprocessor-based protective relaying. Two hours lecture per week.

**Prereq.:** "C" or better in EET 3710 and EET 3710L and EET 3712 and EET 3712L, EET 3700 and MATH 2670.

**Concurrent with:** EET 4820L.

**EET 4820L Power System Protection and Control Lab 0 s.h.**

Establishing communications, programming, and testing of various microprocessor based power system protective relays, including time-overcurrent, bus, differential, motor, distributed generation, and transformer relays. Three hours lab per week.

**Prereq.:** "C" or better in EET 3710 and EET 3710L and EET 3712 and EET 3712L.

**Concurrent with:** EET 4820.

**EET 4845 Microprocessor Systems 3 3 s.h.**

Continuation of EET 3745 with emphasis on real data acquisition, A/D and D/A conversions, and industrial applications.

**Prereq.:** "C" or better in EET 3730 and EET 3730L and EET 3745 and EET 3745L and MATH 2670.

**Concurrent with:** EET 4845L.

**EET 4845L Microprocessor Systems 3 Lab 0 s.h.**

Laboratory exercises utilizing a microcomputer to provide practical applications of concepts developed in EET 4845. Three hours per week.

**Concurrent with:** EET 4845.

**EET 4850 Integrated Circuit Applications 3 s.h.**

Introduction to integrated circuits technology and typical application.

**Prereq.:** "C" or better in EET 3706 and EET 3706L and EET 1502 and EET 1502L and MATH 2670.

**Concurrent with:** EET 4850L.

**EET 4850L Integrated Circuit Applications Lab 0 s.h.**

Laboratory exercises dealing with the application of concepts developed in EET 4850. Three hours per week.

**Concurrent with:** EET 4850.

**EET 4870 Process Control Technology 4 s.h.**

Application of Laplace transform solution of differential equations to system transfer functions. Development of control system transfer functions, control system components and analysis of linear control systems.

**Prereq.:** "C" or better in EET 1502 and EET 1502L and EET 3706 and EET 3706L and EET 3780 and EET 3780L and MATH 2670.

**EET 4880 Electrical and Mechanical Facilities Design 3 s.h.**

Multidisciplinary study of building systems; HVAC, plumbing, electrical power, lighting, and communication systems. Computational labs and group projects for each topic. Two hours lecture and three hours computational lab.

**Prereq.:** Senior standing and permission of the CCET or EET student's program advisor.

**Concurrent:** CCET 4884.

**EET 4890 Special Topics in EET 1-4 s.h.**

Special topics/new developments in electrical engineering technology. Subject matter, special prerequisites, and credit hours to be announced in advance of each offering. May be repeated with different subject matter to a maximum of 8 s.h.

**Prereq.:** Senior standing in EET or consent of the instructor.

## Engineering Technology

**ENTC 1500 Technical Skills Development 4 s.h.**

A course designed to develop the technical, analytical and problem solving skills of students planning to enter an engineering or technical course of study. Three (3) hours of lecture and three (3) hours lab per week. Grading is A, B, C, NC.

**Prereq. or concurrent:** MATH 1501.

**ENTC 1501 Introduction to Engineering Technology 2 s.h.**

Understanding what engineering technology is, exploring careers for engineering technicians, time management and adjusting to the college environments, basic Excel functions and uses, performing labs and writing lab reports, writing class reports/term papers.

**ENTC 1505 Engineering Technology Concepts 4 s.h.**

The role of the technician, technologist, engineer and scientist in the technology team; a study of basic mathematical, scientific, and communicative techniques as applied to the work of engineering technologists; ethical, global, and societal issues facing the engineering technology professional. Three hours lecture, three hours lab per week. Grading is A, B, C, NC. Corequisite MATH 1513.

**Prereq.:** grade of "B" in both ENTC 1500 and MATH 1507.

**ENTC 2615 Design Project 3 s.h.**

The student undertakes a project designed to utilize principle methods studied in previous courses. The subject of the project is determined jointly by the student and instructor and developed formally by the student. The course is normally taken during the final stages of the student's program.

**Prereq.:** Consent of instructor.

**ENTC 3799 Professional Practice in Engineering Technology 1 s.h.**

This course provides students with cooperative education experiences in various engineering technology disciplines. To receive credit for the course, the student is expected to work at the assignment a minimum of 400 hours, submit a report of activities, and obtain approval of the department Professional Practice Committee. Course may be repeated up to a maximum of 3 s.h. toward the BSAS. Students are considered full-time even though only 1 s.h. is given for each course. Grading: PR, CR, NC.

**Prereq.:** Consent of department chairperson.

**ENTC 4895 Independent Engineering Technology Project 1-4 s.h.**

Individual study under direction of a faculty member. Written and oral report required. May be repeated for a maximum of 4 s.h.

**Prereq.:** Junior standing, consent of instructor, and prior approval of the project by the IETP committee of engineering technology faculty.

## Electrical Utility Technology

**EUT 1500 Electrical Fundamentals 3 s.h.**

Introduction to direct and alternating current circuits. Study of resistance, capacitance, inductance, Ohm's and Kirchoff's Laws applied to circuits. Three hours lecture per week.

**Prereq.:** ENTC 1500 and MATH 1501 or at least level 3 on the Mathematics Placement Test.

**Concurrent with:** EUT 1500L.

**EUT 1500L Electrical Fundamentals Lab 1 s.h.**

Lab component of EUT 1500. Provides hands-on instruction in the use of electrical test equipment including digital multimeters, power supplies, oscilloscopes, etc. Three hours per week.

**Prereq.:** ENTC 1500 and MATH 1501 or at least level 3 on the Mathematics Placement Test.

**Concurrent with:** EUT 1500.

**EUT 1502 Power Plant Fundamentals 4 s.h.**

Introduction to power plant systems including boiler, turbine, generator, condenser, pumps, and auxiliary equipment. Emphasizes use of schematics and diagrams in discussing plant systems. Includes plant safety training. Four hours lecture per week.

**Prereq.:** MATH 1501 or Level 3 on MPT and eligible to enroll in ENGL 1550.

**Prereq. or concurrent:** ENTC 1500.

**Concurrent:** EUT 1502L.

**EUT 1502L Power Plant Fundamentals Lab 1 s.h.**

Lab component to accompany EUT 1502. Provides introduction to power generating plant systems and equipment including boiler, turbine, generator, condenser, pumps, and auxiliary equipment. Emphasizes the use of schematics and diagrams in discussing plant systems. Three hours laboratory per week.

**Concurrent with:** EUT 1502.

**EUT 1503 Power Plant Mechanical Equipment 3 s.h.**

Introduction to various mechanical equipment found in power plants including pumps, fans, blowers, valves, heat exchangers and power transmission equipment. Mechanical concepts of force and torque. Basic types of bearings, seals, and lubrication. Mechanical assembly drawings and diagrams. Three hours lecture per week.

**Prereq.:** ENTC 1500 and EUT 1502, EUT 1502L, and MATH 1501.

**Concurrent with:** EUT 1503L.

**EUT 1503L Power Plant Mechanical Equipment Lab 1 s.h.**

Lab component to accompany EUT 1503. Provides hands-on activities related to pumps, fans, blowers, valves, heat exchangers, bearings, seals, lubrication, and power transmission equipment. Three hours lab per week.

**Prereq.:** ENTC 1500, EUT 1502, EUT 1502L, and MATH 1501.

**Concurrent with:** EUT 1503.

**EUT 1504 Maintenance Fundamentals 1 4 s.h.**

Introduction to blueprint reading and technical diagrams, use of hand tools and power tools, safety and health, development of troubleshooting skills, chemical hazards, and material safety data sheets. Three hours lecture, and three hours lab per week.

**Prereq. or concurrent:** ENTC 1500.

**EUT 1505 Maintenance Fundamentals 2 4 s.h.**

Introduction to piping systems, basic hydraulics and pneumatics, hydraulic and pneumatic troubleshooting, rigging and equipment installation, welding principals, oxyacetylene cutting and welding. Three hours lecture, three hours lab per week.

**Prereq.:** EUT 1502 and EUT 1504, concurrent or prerequisite EUT 1503.

**EUT 2600 Electric Utility Distribution Systems 4 s.h.**

Applications of transformers, switchgear, regulators, overhead conductors and underground cable. Power factor correction, voltage regulation, coordination and overcurrent protection of distribution circuits.

**Prereq.:** EUT 1500.

**EUT 2601 Electrical Codes and Standards 4 s.h.**

National Electrical Code and National Electrical Safety Code as applied to overhead and underground electric utility distribution systems. Pole guying, overhead conductor sag and tension, cable pulling, and clearances. Four hours lecture per week.

**Prereq.:** EUT 2600.

**EUT 2604 Power Plant Electrical Equipment 3 s.h.**

Study of three-phase power systems including motors, generators, transformers, and switchgear. NEC and NESC Code requirements, automatic and manual motor controls, variable speed drives, circuit protection. Three hours lecture per week.

**Prereq.:** EUT 1500 and EUT 1500L.

**Concurrent with:** EUT 2604L.

**EUT 2604L Power Plant Electrical Equipment Lab 1 s.h.**

Lab component to accompany EUT 2604. Provides hands-on activities related to three-phase power systems, motors, generators, transformers, and switchgear. Three hours lab per week.

**Prereq.:** EUT 1500 and EUT 1500L.

**Concurrent with:** EUT 2604.

**EUT 2605 Intermediate Power Plant Systems 3 s.h.**

Continuation of EUT 1502. Study of power plant cycles, thermodynamic properties of water and steam, and use of steam tables. Includes thermodynamic analysis of boiler system, feedwater, superheat, and reheat systems, heat transfer in pre-heaters, turbine, condensers, and pumps. Three hours lecture per week.

**Prereq.:** EUT 1503, and EUT 1503L.

**Concurrent with:** EUT 2605L.

**EUT 2605L Intermediate Power Plant Systems Lab 1 s.h.**

Lab component to accompany EUT 2605. Provides hands-on and computational methods to dynamic analysis of boiler system, feedwater, superheat, and reheat systems, heat transfer in pre-heaters, turbine, condenser, and pumps. Three hours per week.

**Prereq.:** EUT 1503, and EUT 1503L.

**Concurrent with:** EUT 2605.

**EUT 2606 Power Plant Operator Practice 3 s.h.**

Discusses the operation of large utility power plants including start-up and shut-down of all major systems, disturbance response, and safe operation of plant systems. Three hours lecture per week.

**Prereq.:** EUT 1503 and EUT 1503, EUT 1503L.

**Concurrent** and EUT 2605/EUT 2605L.

**EUT 2607 Power Plant Instrumentation and Control 3 s.h.**

Introduces basic principles of process instrumentation and control systems. Measurement parameters such as flow, pressure, level, temperature, and pH. Includes coverage of programmable logic controllers, and distributed control systems. Three hours lecture per week.

**Prereq.:** EUT 2604, EUT 2604L and EUT 2605, EUT 2605L.

**Concurrent with:** EUT 2607L.

**EUT 2607L Power Plant Instrumentation & Control Lab 1 s.h.**

Lab component to accompany EUT 2607. Provides hands-on activities related to process instrumentation and control systems. Three hours per week.

**Prereq.:** EUT 2604L, and EUT 2605L.

**Concurrent with:** EUT 2607.

**EUT 2608 Advanced Power Plant Systems 3 s.h.**

Continuation of EUT 2605. Examines on-line boiler control concepts, including combustion, feedwater, header pressure, oxygen content, power demand, and other processes as applied to utility boilers and process heat supply boilers. Also examines pollution control systems, gas turbines and diesel generators. Three hours lecture per week.

**Prereq.:** EUT 2605, EUT 2605L.

**Concurrent with:** EUT 2607, EUT 2607L and EUT 2608L.

**EUT 2608L Advanced Power Plant Systems Lab 1 s.h.**

Lab component to accompany EUT 2608. Provides hands-on activities related to on-line boiler control concepts, pollution control systems, gas turbines and diesel generators. Three hours per week.

**Prereq.:** EUT 2605, EUT 2605L.

**Concurrent with:** EUT 2607, EUT 2607L and EUT 2608.

**EUT 2699 Electric Utility Co-op 2 s.h.**

Compensated and evaluated work experience with local utility company. Forty contact hours per week.

**Prereq.:** EUT 2691, permission of program coordinator.

## Mechanical Engineering Technology

**MET 1515 Mechanics 1 3 s.h.**

Study of forces as vector quantities; resultants of force systems; principles of mechanical equilibrium; application of principles to problems, devices and structures commonly encountered in industry. Two hours lecture, three hours lab per week.

**Prereq.:** "C" or better in ENTC 1505 and MATH 1513.

**MET 2606 Solid Modeling 4 s.h.**

Study of parametric solid modeling and other 3D techniques using Solid Works and Inventor software, including work with geometric dimensioning and tolerancing. Three hours lecture, three hours lab per week.

**Prereq.:** C or better in CCET 1503.

**MET 2616 Mechanics 2 3 s.h.**

Continuation of MET 1515 with further application of statics, introduction to dynamics of solids, study of various types of motion, Newton's second law, work and energy, impulse and momentum. Two hours lecture, three hours lab per week.

**Prereq.:** MET 1515 "C" or better.

**MET 2630 Manufacturing Techniques 3 s.h.**

The study of materials and processes used in manufacturing, including casting, heat treatment, hot and cold working, plastics processing and machining, Geometric Dimensioning and Tolerancing.

**Prereq.:** "C" or better in ENTC 1505.

**MET 2630L Manufacturing Techniques Laboratory 1 s.h.**

Practice and procedures of machine tool operation including lathes, drill presses, shapers, and milling machines. Two hours lab per week. "C" or better in MET 2630 or concurrent with MET 2630.

**MET 3705 Thermodynamics 4 s.h.**

Properties of ideal and real gases, first and second laws of thermodynamics, application to thermodynamic cycles involving power plants and cyclic machinery.

**Prereq.:** "C" or better in CHEM 1515 or CHEM 1505, "C" or better in EET 3725.

**MET 3706 Machine Design 1 4 s.h.**

Principles of stresses and deflections, shear and moment diagrams, combined stresses, fatigue, measurement of strain, and theories of failure. Application of these principles to design of machine components. Includes a capstone experience for MET AAS degrees. 4 s.h.

**Prereq.:** "C" or better in CCET 2604, "C" or better in DDT 1503.

**MET 3707 Machine Design 2 3 s.h.**

Continuation of MET 3706, progressing to the design of machine elements such as gears, belts, clutches, chains, bearings, welded and bolted joints. Two hours lecture, three hours lab per week.

**Prereq.:** "C" or better in MET 3706.

**MET 3710 Tool Design 3 s.h.**

Design and selection of cutting tools, fixtures, bending and forming dies, inspection and gauging instruments, and material feed mechanisms. Two hours lecture, three hours lab per week.

**Prereq.:** "C" or better in MET 3706.

**MET 3711 Heat and Power Cycles 4 s.h.**

A continuation of MET 3705, including the study of heat transfer, the Rankine cycle, the Otto cycle, the Diesel cycle, and the performance of pumps and heat exchangers.

**Prereq.:** 'C' or better in MET 3714, "C" or better in MET 3705.

**MET 3714 Fluid Mechanics 4 s.h.**

Principles of fluid statics and fluid dynamics and their application to incompressible flow in pipes and channels; Bernoulli's equation, laminar and turbulent flow; energy and momentum in fluid flow.

**Prereq.:** "C" or better in MET 1515.

**MET 3714L Fluid Mechanics Laboratory 1 s.h.**

Experiments and applications of concepts covered in MET 3714. Three hours lab per week. Prereq.. C or better in MET 3714 or concurrent with MET 3714.

**MET 3720 Mechanisms 3 s.h.**

Graphical and analytical solution of problems involving displacement, velocity, and acceleration in machine mechanisms. Design of linkages with drafting software to provide required motions of machine members. Two hours lecture, three hours lab per week.

**Prereq.:** C or better in MET 2616, "C" or better in MATH 1570 or "C" or better in MATH 1571.

**MET 3730 Energy and Financial Modeling 4 s.h.**

The analysis and evaluation of financial factors that affect alternative energy systems explored in several common systems, such as solar, fuel cells, biodiesel, and wind, along with existing fuels such as coal, oil, natural gas, and nuclear.

**Prereq.:** MET 3705.

**MET 4810 Manufacturing Systems Analysis 3 s.h.**

Study of manufacturing systems including manufacturing process design, analysis, selection and sequencing; value analysis, machine tool cost and functions; computer and statistical simulation of production systems. Two hours lecture and three hours of computational lab per week.

**Prereq.:** "C" or better in MET 3707.

**MET 4812 Numerical Control 3 s.h.**

A study of the programming of numerically-controlled machine tools. Students program NC machines using manual and computer-assisted techniques.

**Prereq.:** C or better in DDT 2606, and C or better in MET 3707.

**Concurrent:** MET 4812L.

**MET 4812L Numerical Control Lab 1 s.h.**

A study of the programming of numerically-controlled machine tools. Students program NC machines using manual and computer-assisted techniques. Three hours lab per week. Coreq. or.

**Prereq.:** MET 4812.

**MET 4820 Machine Systems 3 s.h.**

Interdisciplinary capstone course. Analysis and design of complex machine systems incorporating hydraulic and pneumatic subsystems and electrical controls, including PLCs. Comprehensive design projects. Two hours lecture, three hours lab per week.

**Prereq.:** Senior standing in MET and permission of instructor.

**MET 4850 Air Conditioning Principles and Practice 3 s.h.**

The practical techniques used in the design of heating, ventilating, and air conditioning systems, including load calculations, unit selection, and duct system layout. The laboratory work includes the use of design charts and manufacturer's catalogs in a project. Two hours lecture, two hours lab per week.

**Prereq.:** MET 3711.

**MET 4860 Robotics Technology 2 s.h.**

An application-oriented course on the technology and use of industrial robots, including classification, tooling, sensors, workcell design, safety, and programming.

**Prereq.:** "C" or better in MET 3714, Concurrent with: MET 4860L.

**MET 4860L Robotics Technology Laboratory 1 s.h.**

Practice in the programming and application of industrial robots and associated equipment. Construction of simulated robotic workcells using actual industrial robots, programmable controllers, sensors, and grippers. Two hours lab per week.

**Prereq.:** MET 3714 "C" or better.

**Concurrent with:** MET 4860.

**MET 4870 Applied Finite Element Method 3 s.h.**

Principles of the finite element method and its application to the analysis of stress, strain, and heat transfer. Computer aided solutions to two- and three-dimensional problems in structural analysis, mechanical design and heat transfer. Two hours lecture, three hours lab per week. Prereq. or.

**Coreq.:** with MET 3707 or "C" or better in CCET 3709.

**MET 4890 Special Topics in Mechanical Engineering Technology 1-4 s.h.**

New developments in Mechanical Engineering Technology. Subject matter, special prerequisites, and credit hours to be announced in advance of each offering. May be repeated with different subject matter to a maximum of 8 s.h.

**Prereq.:** Senior standing in MET or consent of the instructor.

## Associate of Applied Science in Civil and Construction Engineering Technology

The associate degree program prepares technicians to support civil engineers in structural design, public works, construction, transportation, and environmental engineering. Most graduates are hired by government agencies, consulting engineers, architects, and contractors.

Students in the civil and construction engineering technology (CCET) program may choose to complete two years of study and earn an Associate of Applied Science (AAS) degree. The AAS degree provides early access to employment in engineering support positions. Upon completion of the AAS degree, the student may continue on for the Bachelor of Science in Applied Science (BSAS) degree. This program provides additional coursework, continuing the student's growth to that of an engineering technologist or designer. Exceptional students may be eligible for enrollment in a Master of Engineering or Master of Business Administration program. Students interested in construction may choose a certificate program in construction management.

### Program Educational Objectives

Educational objectives for the civil and construction engineering technology programs have been developed by faculty and the program industrial advisory committee to support the university, college, and School of Engineering Technology missions. Graduates of the CCET associate degree program are prepared to support civil engineers in:

- structural design
- public works
- construction
- inspection
- transportation
- environmental engineering

### Accreditation and Registration

The civil and construction engineering technology associate is accredited by the ETAC Accreditation Commission of ABET, <http://www.abet.org>.

Date of last campus visit: October, 2011

Accredited through: 2018

Next campus visit: October 2017

Link to accreditation body: ABET (<http://www.abet.org>)

COURSE	TITLE	S.H.
<b>General Education Courses:</b>		
MATH 1513	Algebra and Transcendental Function	5
MATH 1570	Applied Calculus 1	4
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Social Studies GER		3
PHIL 2625	Introduction to Professional Ethics	3
or PHIL 2626	Engineering Ethics	
PHYS 1501	Fundamentals of Physics 1	4

**Total General Education Credit Hours: 28 s.h.****Courses in Major:**

ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
DDT 1503	AutoCAD 1	2
DDT 1504	Drafting and Plan Reading	2
MET 1515	Mechanics 1	3
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
CEEN 2610	Surveying	3
CEEN 2610L	Surveying Laboratory	1
MET 2616	Mechanics 2	3
CCET 3709	Structural Analysis 1	3
CCET 2620	Transportation Technology	3
CCET 2607	Civil 3D	3
CCET 3724	Hydraulics and Land Development	3
CCET 3706	Structural Design	4
CCET 3711	Specifications and Estimating	3

**Total Major Credit Hours: 43 s.h.****Total Semester Hours 72****Course Title S.H.****Year 1****Fall**

ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
MATH 1513	Algebra and Transcendental Function	5
CCET 1503 or DDT 1503	CAD Technology or AutoCAD 1	2
CCET 1504 or DDT 1504	Drafting and Plan Reading or Drafting and Plan Reading	2
ENGL 1550	Writing 1	3

**Semester Hours 18****Spring**

MET 1515	Mechanics 1	3
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
ENGL 1551	Writing 2	3
PHYS 1501	Fundamentals of Physics 1	4
Social Science GER		3

**Semester Hours 18****Year 2****Fall**

CEEN 2610 & 2610L	Surveying and Surveying Laboratory	4
MET 2616	Mechanics 2	3
CCET 3709	Structural Analysis 1	3
CCET 2620	Transportation Technology	3
CCET 2607	Civil 3D	3
PHIL 2626	Engineering Ethics (Arts & Humanities GER)	3

**Semester Hours 19****Spring**

MATH 1570	Applied Calculus 1	4
CCET 3724	Hydraulics and Land Development	3
CCET 3706	Structural Design	4
CCET 3711	Specifications and Estimating	3

CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>17</b>
<b>Total Semester Hours</b>		<b>72</b>

**PROGRAM OUTCOMES**

Graduates in civil and construction engineering technology will achieve the following learning outcomes by the time they graduate:

**ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAM**

Graduates of the associate degree in civil and construction engineering technology will possess the following competencies upon graduation:

- **Learning Outcome 1:** use graphic techniques to produce engineering documents and use modern instruments, methods, and techniques to implement construction contracts, documents, and codes
- **Learning Outcome 2:** conduct standardized field/laboratory testing on civil engineering materials and evaluate materials/methods for construction projects
- **Learning Outcome 3:** utilize modern surveying methods for land measurement and/or construction layout
- **Learning Outcome 4:** determine forces and stresses in elementary structural systems
- **Learning Outcome 5:** estimate material quantities and costs for technical projects
- **Learning Outcome 6:** employ productivity software to solve technical problems

**Associate of Applied Science in Electrical Engineering Technology**

Graduates of the two-year electrical engineering technology program generally function as assistants to electrical engineers in the design, analysis, and laboratory testing of electrical and electronic systems and of rotating machinery. Most graduates are employed by electrical and electronic equipment manufacturers, utility companies, the aerospace industry, and manufacturing companies in general.

Students in the electrical engineering technology (EET) program may choose to complete two years of study and earn an Associate in Applied Science (AAS) degree. The AAS provides early access to employment in engineering support positions. Upon completion of the AAS degree, the student may continue on for the Bachelor of Science in Applied Science (BSAS) degree. This program provides additional coursework, continuing the student's growth to that of an engineering technologist or designer. Exceptional students may be eligible for enrollment in a Master of Engineering or Master of Business Administration program.

**Program Educational Objectives**

Educational objectives for the electrical engineering technology programs have been developed by faculty and the program industrial advisory committee to support the university, college, and School of Engineering Technology missions. Graduates of the EET associate degree program generally function as assistants to electrical engineers in the design, analysis, and laboratory testing of electrical and electronic systems and of rotating machinery. Bachelor degree graduates are prepared to assist in the design and testing of electrical systems and may function independently in some areas.

During their first few years after earning the electrical engineering technology degree at YSU, graduates will have demonstrated the ability to:

- Secure employment in a technical career related to their Electrical Engineering Technology degree.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.

- Achieve recognition consistent with their educational achievements.

## Accreditation and Registration

The electrical engineering technology associate program is accredited by the ETAC Accreditation Commission of ABET, <http://www.abet.org>.

Date of last campus visit: October, 2011

Accredited through: 2018

Next campus visit: October, 2017

Link to accrediting body: ABET (<http://www.abet.org>)

COURSE	TITLE	S.H.
<b>General Education Courses:</b>		
MATH 1513	Algebra and Transcendental Function	5
MATH 1570	Applied Calculus 1	4
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
ECON 2610	Principles 1: Microeconomics	3
PHIL 2626	Engineering Ethics	3
or PHIL 2625	Introduction to Professional Ethics	
PHYS 1501	Fundamentals of Physics 1	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4

**Total General Education Credit Hours: 32 s.h.**

### Courses in Major:

ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
DDT 1503	AutoCAD 1	2
DDT 1504	Drafting and Plan Reading	2
EET 1501	Circuit Theory 1	3
EET 1501L	Circuit Theory 1 Lab	1
EET 1502	Circuit Theory 2	3
EET 1502L	Circuit Theory 2 Lab	1
EET 2605	Electronics 1	3
EET 2605L	Electronics 1 Laboratory	1
EET 2620	Digital Electronics	2
EET 2620L	Digital Electronics Lab	1
EET 3706	Electronics 2	3
EET 3706L	Electronics 2 Laboratory	1
EET 3710	Electrical Machines	3
EET 3710L	Electrical Machines Lab	1
EET 3735 & 3735L	Microprocessor Architecture and Programming and Microprocessor Architecture and Programming Laboratory	3

**Total Major Credit Hours: 36 s.h.**

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
MATH 1513	Algebra and Transcendental Function	5
EET 1501	Circuit Theory 1	3
EET 1501L	Circuit Theory 1 Lab	1
CCET 1503 or DDT 1503	CAD Technology or AutoCAD 1	2

CCET 1504 or DDT 1504	Drafting and Plan Reading or Drafting and Plan Reading	2
<b>Semester Hours</b>		<b>19</b>

### Spring

EET 1502	Circuit Theory 2	3
EET 1502L	Circuit Theory 2 Lab	1
MATH 1570	Applied Calculus 1	4
ENGL 1550	Writing 1	3
PHIL 2626	Engineering Ethics (Arts and Humanities GER)	3

**Semester Hours 14**

### Year 2

#### Fall

EET 2620	Digital Electronics	2
EET 2620L	Digital Electronics Lab	1
EET 2605	Electronics 1	3
EET 2605L	Electronics 1 Laboratory	1
ENGL 1551	Writing 2	3
ECON 2610	Principles 1: Microeconomics	3
CHEM 1515	General Chemistry 1	4
CHEM 1515L	General Chemistry 1 Laboratory	0

**Semester Hours 17**

#### Spring

EET 3706	Electronics 2	3
EET 3706L	Electronics 2 Laboratory	1
EET 3710	Electrical Machines	3
EET 3710L	Electrical Machines Lab	1
EET 3735 & 3735L	Microprocessor Architecture and Programming and Microprocessor Architecture and Programming Laboratory	3
PHYS 1501	Fundamentals of Physics 1	4
CMST 1545	Communication Foundations	3

**Semester Hours 18**

**Total Semester Hours 68**

Graduates of the Associate Degree EET program will possess the following competencies upon graduation:

- **Learning Outcome 1:** be able to apply principles of mathematics and applied science, to perform technical calculations and solve technical problems of the types commonly encountered in electrical engineering technology careers
- **Learning Outcome 2:** demonstrate the ability to identify, formulate, and present creative solutions to technical problems in a variety of specialty areas within the broad fields of electrical engineering technology
- **Learning Outcome 3:** be able to function competently in a laboratory setting, making measurements, operating technical equipment, critically examining experimental results, and properly reporting on experimental results, including their potential for improvement.
- **Learning Outcome 4:** be able to use modern computational tools for technical problem solving, including scientific calculators, computers, and appropriate software.
- **Learning Outcome 5:** demonstrate a broad education and knowledge of contemporary issues in a global and societal context, as necessary to develop professional and ethical responsibility, including responsibility to employers and to society at large
- **Learning Outcome 6:** recognize the need for life-long learning and possess the skills to maintain and improve technical and non-technical abilities
- **Learning Outcome 7:** demonstrate an ability to communicate and function effectively with members of multi-disciplinary teams from a variety of backgrounds.

- **Learning Outcome 8:** demonstrate an ability to utilize computer software applications used in electrical engineering technology such as CAD, spreadsheets, word processing, and basic programming

## Associate of Applied Science in Mechanical Engineering Technology

The mechanical engineering technology (MET) program is designed as a "two-plus-two" program. Students may earn an Associate of Applied Science degree after two years of full-time study. With this degree, they may begin a career in industry. The associate degree graduate can continue for two more years of full-time study to earn the bachelor's degree.

The associate degree program introduces the student to the principles and practices of machine design, manufacturing processes, testing, and energy conversion. Students are also given a firm foundation in communications, mathematics, and science. Upon completion of the associate degree, graduates may find employment as engineering technicians in a wide variety of industries. They assist engineers in the design, drafting, testing, and support of mechanical products or of the industrial equipment and processes used to manufacture consumer products.

### Program Educational Objectives

Educational objectives for the MET programs have been developed by faculty and the program industrial advisory committee to support the university, the college, and the School of Engineering Technology missions. Graduates of the MET associate degree program function as assistants in the design, drafting, and testing of mechanical products, equipment and processes. Bachelor's degree graduates assume greater responsibility in the design and testing of mechanical products, processes, and equipment.

During their first few years after completion of the mechanical engineering technology program at YSU, graduates will have demonstrated the ability to:

- Work competently in technical and professional careers related to the field of mechanical engineering technology.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.
- Achieve recognition and/or compensation consistent with their educational achievements.

## Accreditation and Registration

The mechanical engineering technology associate program is accredited by the ETAC Accreditation Commission of ABET, <http://www.abet.org>.

Date of last campus visit: October, 2011

Accredited through: 2018

Next campus visit: October, 2017

Link to accreditation body: ABET (<http://www.abet.org>)

COURSE	TITLE	S.H.
<b>General Education Courses:</b>		
MATH 1513	Algebra and Transcendental Function	5
MATH 1570	Applied Calculus 1	4
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
GER AH		3
GER SS		3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
PHYS 1501	Fundamentals of Physics 1	4
<b>Total General Education Credit Hours: 29 s.h.</b>		

### Courses in Major:

ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
DDT 1503	AutoCAD 1	2
DDT 1504	Drafting and Plan Reading	2
MET 1515	Mechanics 1	3
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
DDT 2606	CAD Solid Modeling	4
MET 2616	Mechanics 2	3
MET 3714	Fluid Mechanics	4
MET 3714L	Fluid Mechanics Laboratory	1
MET 2630	Manufacturing Techniques	3
MET 2630L	Manufacturing Techniques Laboratory	1
MET 3706	Machine Design 1	4

**Total Major Credit Hours: 38 s.h.**

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
MATH 1513	Algebra and Transcendental Function	5
CCET 1503 or DDT 1503	CAD Technology or AutoCAD 1	2
CCET 1504 or DDT 1504	Drafting and Plan Reading or Drafting and Plan Reading	2
ENGL 1550	Writing 1	3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
MET 1515	Mechanics 1	3
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
MATH 1570	Applied Calculus 1	4
MET 2606 or DDT 2606	Solid Modeling or CAD Solid Modeling	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
MET 2616	Mechanics 2	3
MET 3714 & 3714L	Fluid Mechanics and Fluid Mechanics Laboratory	5
PHYS 1501	Fundamentals of Physics 1	4
Arts & Humanities GER <sup>1</sup>		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MET 2630 & 2630L	Manufacturing Techniques and Manufacturing Techniques Laboratory	4
MET 3706	Machine Design 1	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGL 1551	Writing 2	3
Social Science GER <sup>1</sup>		3
<b>Semester Hours</b>		<b>18</b>
<b>Total Semester Hours</b>		<b>67</b>

<sup>1</sup> General Education Requirement: see "Schedule of Classes" for details.

SPA = Social & Personal Awareness (2 required for BSAS)

SS = Social Sciences (2 required for BSAS)

AH = Arts & Humanities (2 required for BSAS)

## PROGRAM OUTCOMES

MET students will demonstrate by the time of graduation:

- mastery of knowledge, skills, and tools of the discipline
- ability to apply knowledge to solve engineering problems
- ability to conduct, analyze, and interpret experiments
- ability to work effectively in teams
- ability to identify, analyze, and solve technical problems
- ability to communicate effectively
- recognition of the need for professional development
- ability to understand professional, ethical, social, and diversity responsibilities
- commitment to quality, timeliness, and continuous improvement

# Associate of Technical Study in Power Plant Technology Power Plant (Electrical Utilities) Technology

This program prepares graduates to perform basic operating functions required in electric utility power plants and other related industries. Students gain knowledge in electrical theory, electrical machinery and controls, power plant operations, boiler, turbine, and generator operations, power plant instrumentation, and pollution control equipment. In addition, college writing, oral communications, and general education form an integral part of the program. Upon successful completion of the program, students are prepared for entry-level employment in the utility industry.

Students in this program are awarded academic credit for skills-related experience and training to compliment the academic coursework at YSU. Graduates of this program are awarded an Associate of Technical Studies (ATS) Degree.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
ENTC 1500	Technical Skills Development	4
ENTC 1501	Introduction to Engineering Technology	2
EUT 1502 & 1502L	Power Plant Fundamentals and Power Plant Fundamentals Lab <sup>1</sup>	5
CSIS 1514	Business Computer Systems	3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
EUT 1500 & 1500L	Electrical Fundamentals and Electrical Fundamentals Lab	4
EUT 1503 & 1503L	Power Plant Mechanical Equipment and Power Plant Mechanical Equipment Lab	4
MATH 2623	Quantitative Reasoning	3
ENGL 1551	Writing 2	3
GER <sup>2</sup>		3
<b>Semester Hours</b>		<b>17</b>

<b>Summer</b>		
EUT 2699	Electric Utility Co-op (Optional)	2
<b>Semester Hours</b>		<b>2</b>
<b>Year 2</b>		
<b>Fall</b>		
EUT 2604 & 2604L	Power Plant Electrical Equipment and Power Plant Electrical Equipment Lab	4
EUT 2605 & 2605L	Intermediate Power Plant Systems and Intermediate Power Plant Systems Lab	4
EUT 2606	Power Plant Operator Practice	3
CMST 1545	Communication Foundations	3
Social Sciences GER <sup>2</sup>		3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
EUT 2607 & 2607L	Power Plant Instrumentation and Control and Power Plant Instrumentation & Control Lab	4
EUT 2608 & 2608L	Advanced Power Plant Systems and Advanced Power Plant Systems Lab	4
MGT 3725 or MGT 3750	Fundamentals of Management (recommended) or Managing Individuals in Organizations	3
Natural Science + Lab GER <sup>2</sup>		4
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>68</b>

<sup>1</sup> MATH 1501 Elementary Algebraic Models or level 20 on the MPT and eligibility to take ENGL 1550 Writing 1 (i.e., completion of R&SK and ENGL 1540 Introduction to College Writing or test out) are prerequisites. ENTC 1500 Technical Skills Development is a pre- or co-requisite.

<sup>2</sup> General Education Requirement: see "Schedule of Classes" for details.

## Bachelor of Science in Applied Science in Civil and Construction Engineering Technology

### Bachelor of Science in Applied Science Degree

(330) 941-3287

Students in the civil and construction engineering technology (CCET) program may choose to complete two years of study and earn an Associate of Applied Science (AAS) degree. The AAS degree provides early access to employment in engineering support positions. Upon completion of the AAS degree, the student may continue on for the Bachelor of Science in Applied Science (BSAS) degree. This program provides additional coursework, continuing the student's growth to that of an engineering technologist or designer. Exceptional students may be eligible for enrollment in a Master of Engineering or Master of Business Administration program. Students interested in construction may choose a certificate program in construction management.

The civil and construction engineering technology programs is based on the "two-plus-two" educational system which provides the student with the flexibility of earning an associate degree and a bachelor's degree according to his or her needs. After completing the requirements of the associate degree, the student may elect to either enter industry or, through an added two years of full-time study (averaging 17 hours per semester) or equivalent part-time study, earn the Bachelor of Science in Applied Science (BSAS).



Graduates of the BSAS degree program obtain employment as engineering technologists or engineering designers for government agencies, consulting engineers and architects, industry and manufacturing, and contractors. Because their education is more extensive, they are prepared for more responsibility and more-rapid advancement. BSAS engineering technologists and designers plan, design, inspect, and direct construction, production, and maintenance activities.

Based on an evaluation of their work, transfer students who have a related associate degree from a regionally accredited institution may be admitted to the bachelor's degree program at the junior level.

## Program Educational Objectives

Educational objectives for the civil and construction engineering technology programs have been developed by faculty and the program industrial advisory committee to support the university, college, and School of Engineering Technology missions. Graduates of the CCET associate degree program are prepared to support civil engineers in:

- structural design
- public works
- construction
- inspection
- transportation
- environmental engineering

Bachelor's degree graduates are prepared to assist with planning, design, inspection, and direction of the construction of projects involving buildings, roads, dams, bridges, airports, and wastewater treatment facilities.

During their first few years after earning the civil and construction engineering technology degree at YSU, graduates will have demonstrated the ability to:

- Secure employment in a technical career related to their civil and construction engineering technology degree.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.
- Achieve recognition consistent with their educational achievements.

## Accreditation and Registration

The civil and construction engineering technology bachelor program is accredited by the ETAC Accreditation Commission of ABET, <http://www.abet.org>. In most states, including Ohio, West Virginia and Pennsylvania, bachelor's degree graduates are qualified to take the Fundamentals of Engineering (FE) exam, and, with sufficient work experience, the Professional Engineers (PE) exam. Graduates are also qualified to apply to the National Institute for Certification in Engineering Technologies (NICET) for certification procedures in various specialty areas, depending on academic major and employment area.

Date of last campus visit: October, 2011

Accredited through: 2018

Next campus visit: October, 2017

Link to accrediting body: ABET (<http://www.abet.org>)

COURSE	TITLE	S.H.
<b>General Education Courses:</b>		
MATH 2670	Applied Calculus 2	5
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	3
GER SPA		3
GER SPA		3
GER Social Studies		3

GER Arts & Humanities 3  
**Total GER Credit Hours: 20 s.h.**

### Courses in the Major:

<b>Design Elective (3 courses required):</b>		9
CCET 4812	Concrete Design	
CCET 4813	Steel Design	
CCET 4814	Foundation Design	
CCET 4815	Masonry Design	
CCET 4816	Timber Design	
CCET 3705	Computing for Technologists	3
EET 3725 & 3725L	Electromechanical Systems and Electromechanical Systems Lab	4
CCET 3735	Heavy Highway Technology	3
CCET 3740	Construction Management	3
CCET 3708 & 3708L	Building Information Modeling and Building Information Modeling Laboratory	3

**CCET Elective (2 courses required):** 6

CCET 4807	Project Planning & Scheduling	
CCET 4809	Structural Analysis 2	
CCET 4810	Construction Surveying	
CCET 4824	Environmental Technology	
CCET 4890	Special Topics in Civil and Construction Engineering Technology	
ENTC 4895	Independent Engineering Technology Project	
CCET 3714	Soil Mechanics	2
CCET 3714L	Soil Mechanics Laboratory (Technical Elective (1 courses required):)	1

**Technical Elective (1 courses required):** 3

Any CCET or Design Elective		
MET 4870	Applied Finite Element Method	
CEEN 4835	Highway Design	
CEEN 5820	Pavement Material and Design	
CCET 4884	Civil/Structural Facilities Design	3
EET 4810	Electrical System Design	3

**Total Major Credits: 43 s.h.**

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
MATH 1513	Algebra and Transcendental Function	5
CCET 1503	CAD Technology	2
CCET 1504	Drafting and Plan Reading	2
ENGL 1550	Writing 1	3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
MET 1515	Mechanics 1	3
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
ENGL 1551	Writing 2	3
PHYS 1501	Fundamentals of Physics 1	4
Social Science GER <sup>1</sup>		3
<b>Semester Hours</b>		<b>18</b>

**Year 2**

**Fall**

CEEN 2610 & 2610L	Surveying and Surveying Laboratory	4
MET 2616	Mechanics 2	3
CCET 3709	Structural Analysis 1	3
CCET 2620	Transportation Technology	3
PHIL 2626	Engineering Ethics (Arts & Humanities GER)	3
CCET 2607	Civil 3D	3
<b>Semester Hours</b>		<b>19</b>

**Spring**

MATH 1570	Applied Calculus 1	4
CCET 3724	Hydraulics and Land Development	3
CCET 3706	Structural Design	4
CCET 3711	Specifications and Estimating	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>17</b>

**Year 3**

**Fall**

Design Elective		3
CCET 3705	Computing for Technologists	3
MATH 2670	Applied Calculus 2	5
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	3
EET 3725 & 3725L	Electromechanical Systems and Electromechanical Systems Lab	4
<b>Semester Hours</b>		<b>18</b>

**Spring**

Design Elective		3
CCET 3735	Heavy Highway Technology	3
CCET 3740	Construction Management	3
CCET 3708 & 3708L	Building Information Modeling and Building Information Modeling Laboratory	3
CCET Elective		3
<b>Semester Hours</b>		<b>15</b>

**Year 4**

**Fall**

Design Elective		3
CCET 3714 & 3714L	Soil Mechanics and Soil Mechanics Laboratory	3
CCET Elective		3
Technical Elective		3
Social & Personal Awareness GER <sup>1</sup>		3
<b>Semester Hours</b>		<b>15</b>

**Spring**

CCET 4884	Civil/Structural Facilities Design <sup>2</sup>	3
EET 4880	Electrical and Mechanical Facilities Design <sup>2</sup>	3
Social & Personal Awareness GER <sup>1</sup>		3
Social Science GER <sup>1</sup>		3
Arts & Humanities GER <sup>1</sup>		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>135</b>

- <sup>1</sup> General Education Requirement: see "Schedule of Classes" for details.  
 SPA = Social & Personal Awareness (2 required for BSAS)  
 SS = Social Sciences (2 required for BSAS)  
 AH = Arts & Humanities (2 required for BSAS)
- <sup>2</sup> Capstone course sequence must be taken concurrently, requires Program Coordinator approval.
- <sup>3</sup> General Education Elective: Choose BIOL 2601 General Biology: Molecules and Cells, BIOL 2601L General Biology: Molecules and Cells Laboratory, GEOL 1505 Physical Geology, GEOL 1505L Physical Geology Laboratory, GEOL 2611 Geology for Engineers

## Electives

COURSE	TITLE	S.H.
<b>Technical Electives</b>		
Select one of the following:		3
Any CCET Electrical/Design Elective		
MET 4860	Robotics Technology	
CEEN 4835	Highway Design <sup>4</sup>	
CEEN 5820	Pavement Material and Design <sup>4</sup>	
<b>Design Electives</b>		
Select three of the following:		9
CCET 4812	Concrete Design	
CCET 4813	Steel Design	
CCET 4814	Foundation Design	
CCET 4815	Masonry Design	
CCET 4816	Timber Design	
<b>CCET Electives</b>		
Select two of the following:		4-6
CCET 4807	Project Planning & Scheduling	
CCET 4809	Structural Analysis 2	
CCET 4810	Construction Surveying	
CCET 4824	Environmental Technology	
CCET 4890	Special Topics in Civil and Construction Engineering Technology <sup>4</sup>	
ENTC 4895	Independent Engineering Technology Project <sup>4</sup>	
<b>Total Semester Hours</b>		<b>16-18</b>

- <sup>4</sup> Approval of the CCET Program Coordinator is required **before** taking the course.

## PROGRAM OUTCOMES

Graduates in civil and construction engineering technology will achieve the following learning outcomes by the time they graduate:

Bachelor of Science in Applied Science Degree Program

Graduates of the bachelor degree in civil and construction engineering technology will possess the following competencies upon graduation.

- **Learning Outcome 1:** ability to plan, prepare, and utilize design, construction, and operations documents, such as specifications, contacts, change orders, engineering drawings, and construction schedules
- **Learning Outcome 2:** perform economic analyses and cost estimates related to design, construction, operations, and maintenance of systems related to civil and construction engineering
- **Learning Outcome 3:** ability to select appropriate construction and engineering materials/practices
- **Learning Outcome 4:** (Construction Engineering Technology) ability to apply principles of construction law and ethics

- **Learning Outcome 5:** apply basic technical concepts related to the civil and construction engineering technology field; such as hydraulics, hydrology, geotechnics, structures, material behavior, transportation systems, and water and wastewater systems
- **Learning Outcome 6:** perform standard analysis/design in at least one technical specialty within civil and construction engineering technology

## Bachelor of Science in Applied Science in Electrical Engineering Technology

### Bachelor of Science in Applied Science Degree

The electrical engineering technology program is based on the "two-plus-two" educational system which provides the student with the flexibility of earning an associate degree and a bachelor's degree according to his or her needs. After completing the requirements of the associate degree, the student may elect to either enter industry or, through an added two years of full-time study (averaging 17 hours per semester) or equivalent part-time study, earn the Bachelor of Science in Applied Science (BSAS).

The bachelor's degree program in electrical engineering technology prepares students for employment as engineering technologists or engineering designers. The students focus on analog and digital electronics communication systems, smart grid and power distribution, and computer networking systems. Co-op programs with various local companies enable EET students to gain experience and income during their junior and senior years. Many students work full or part-time while completing the BSAS degree taking evening classes. Students are encouraged to take the Fundamentals of Engineering (FE) exam as the first step toward professional registration.

### Program Educational Objectives

Educational objectives for the electrical engineering technology programs have been developed by faculty and the program industrial advisory committee to support the university, college, and School of Engineering Technology missions. Graduates of the EET bachelor degree are prepared to assist in the design and testing of electrical systems and may function independently in some areas.

During their first few years after earning the electrical engineering technology degree at YSU, graduates will have demonstrated the ability to:

- Secure employment in a technical career related to their Electrical Engineering Technology degree.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.
- Achieve recognition consistent with their educational achievements.

### Accreditation and Registration

The electrical engineering technology bachelor program is accredited by the ETAC Accreditation Commission of ABET, <http://www.abet.org>. In most states, including Ohio, West Virginia and Pennsylvania, bachelor's degree graduates are qualified to take the Fundamentals of Engineering (FE) exam, and, with sufficient work experience, the Professional Engineers (PE) exam. Graduates are also qualified to apply to the National Institute for Certification in Engineering Technologies (NICET) for certification procedures in various specialty areas, depending on academic major and employment area.

Date of last campus visit: October, 2011

Accredited through: 2018

Next campus visit: October, 2017

Link to accrediting body: ABET (<http://www.abet.org>)

COURSE	TITLE	S.H.
<b>General Education Courses:</b>		
MATH 2670	Applied Calculus 2	5
ENGL 3743	Professional and Technical Writing	3
GER SPA		3
GER SPA		3
GER SS		3
GER AH		3
<b>Total GER Credit Hours: 20 s.h.</b>		
<b>Courses in the major:</b>		
EET 3745 & 3745L	Microprocessor Systems 2 and Microprocessor Systems 2 Lab	3
EET 3730 & 3730L	Logic Systems Design and Logic Systems Design Lab	3
EET 3700	Methods in Circuit Analysis	3
EET 3701	Transform Circuit Analysis	3
EET 3760 & 3760L	Variable Speed Drives and Variable Speed Drives Lab	3
EET 3712 & 3712L	Programmable Logic Controllers and PLC Laboratory	4
<b>EET or Technical Elective:</b>		3
EET Electives:		
EET 4820	Power System Protection and Control	
EET 4845	Microprocessor Systems 3	
EET 4850 & 4850L	Integrated Circuit Applications and Integrated Circuit Applications Lab	
EET 4890	Special Topics in EET	
Technical Electives:		
ISEN 3710	Engineering Statistics	
ISEN 3724	Engineering Economy	
CSIS 2610	Programming and Problem-Solving	
MET 3705	Thermodynamics	
MET 4860	Robotics Technology	
MET 4860L	Robotics Technology Laboratory	
EET 3780	Communication Systems	3
EET 4810	Electrical System Design	3
<b>EET Elective 48XX</b>		6
EET 4820	Power System Protection and Control	
EET 4845	Microprocessor Systems 3	
EET 4850 & 4850L	Integrated Circuit Applications and Integrated Circuit Applications Lab	
EET 48XX		
CCET 3705	Computing for Technologists	3
EET 4870	Process Control Technology	4
<b>Total Major Credit Hours: 41 s.h.</b>		
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
EET 1501 & 1501L	Circuit Theory 1 and Circuit Theory 1 Lab	4
MATH 1513	Algebra and Transcendental Function	5
CCET 1503	CAD Technology	2

CCET 1504	Drafting and Plan Reading	2
<b>Semester Hours</b>		<b>19</b>
<b>Spring</b>		
EET 1502 & 1502L	Circuit Theory 2 and Circuit Theory 2 Lab	4
MATH 1570	Applied Calculus 1	4
ENGL 1550	Writing 1	3
PHIL 2626	Engineering Ethics (Arts and Humanities GER)	3
<b>Semester Hours</b>		<b>14</b>
<b>Year 2</b>		
<b>Fall</b>		
EET 2605 & 2605L	Electronics 1 and Electronics 1 Laboratory	4
EET 2620 & 2620L	Digital Electronics and Digital Electronics Lab	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGL 1551	Writing 2	3
ECON 2610	Principles 1: Microeconomics	3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
EET 3706 & 3706L	Electronics 2 and Electronics 2 Laboratory	4
EET 3710 & 3710L	Electrical Machines and Electrical Machines Lab	4
EET 3735 & 3735L	Microprocessor Architecture and Programming and Microprocessor Architecture and Programming Laboratory	3
PHYS 1501	Fundamentals of Physics 1	4
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>18</b>
<b>Year 3</b>		
<b>Fall</b>		
MATH 2670	Applied Calculus 2	5
EET 3730 & 3730L	Logic Systems Design and Logic Systems Design Lab	3
EET 3745 & 3745L	Microprocessor Systems 2 and Microprocessor Systems 2 Lab	3
EET 3700	Methods in Circuit Analysis	3
ENGL 3743	Professional and Technical Writing	3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
EET 3701	Transform Circuit Analysis	3
EET 3760 & 3760L	Variable Speed Drives and Variable Speed Drives Lab	3
EET 3712 & 3712L	Programmable Logic Controllers and PLC Laboratory	4
EET or Technical Elective <sup>2</sup>		3
Social Science GER <sup>1</sup>		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
EET 3780 & 3780L	Communication Systems and Communication Systems Lab	3
EET 4810	Electrical System Design	3
EET Elective <sup>2</sup>		3
CCET 3705	Computing for Technologists	3

Social & Personal Awareness GER <sup>1</sup>	3	
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
EET 4870	Process Control Technology	4
EET Elective <sup>2</sup>		3
Arts & Humanities GER <sup>1</sup>		3
Social & Personal Awareness GER <sup>1</sup>		3
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>129</b>

- <sup>1</sup> General Education Requirement:  
 SPA = Social & Personal Awareness (2 required for BSAS)  
 SS = Social Science (2 required for BSAS)  
 AH = Arts & Humanities (2 required for BSAS)
- <sup>2</sup> EET Electives: 4820, 4845, 4850/L, 48XX (Special Topics)  
 Technical Electives: ISEN 3720, ISEN 3724, MET 3705, MET 4860/L, CSIS 2620, EET 2653/L

Graduates of the bachelor's degree EET program will possess the following competencies upon graduation

- **Learning Outcome 1:** be able to apply principles of mathematics and applied science, to perform technical calculations and solve technical problems of the types commonly encountered in electrical engineering technology careers
- **Learning Outcome 2:** demonstrate the ability to identify, formulate, and present creative solutions to technical problems in a variety of specialty areas within the broad fields of electrical engineering technology.
- **Learning Outcome 3:** be able to function competently in a laboratory setting, making measurements, operating technical equipment, critically examining experimental results, and properly reporting on experimental results, including their potential for improvement
- **Learning Outcome 4:** be able to use modern computational tools for technical problem solving, including scientific calculators, computers, and appropriate software.
- **Learning Outcome 5:** demonstrate a broad education and knowledge of contemporary issues in a global and societal context, as necessary to develop professional and ethical responsibility, including responsibility to employers and to society at large.
- **Learning Outcome 6:** recognize the need for life-long learning and possess the skills to maintain and improve technical and non-technical abilities
- **Learning Outcome 7:** demonstrate an ability to communicate and function effectively with members of multi-disciplinary teams from a variety of backgrounds
- **Learning Outcome 8:** the ability to identify, formulate, and solve engineering problems in the following major electrical engineering technology disciplines: analog and digital electronics, communication systems, power, aerospace and computer systems.
- **Learning Outcome 9:** the knowledge of professional practice issues, with an understanding of social responsibilities and a respect for diversity

## Bachelor of Science in Applied Science in Mechanical Engineering Technology

Students who have earned the associate degree may elect to complete the bachelor's degree on either a full- or part-time basis. Courses in the bachelor's degree program further develop technical, communication, and managerial skills. Upon successful completion of the coursework, graduates are awarded the Bachelor of Science in Applied Science degree and are prepared for greater levels of responsibility and greater career advancement.

Graduates of the BSAS degree program obtain employment as engineering technologists or engineering designers for government agencies, consulting engineers and architects, industry and manufacturing, and contractors. Because their education is more extensive, they are prepared for more responsibility and more-rapid advancement. BSAS engineering technologists and designers plan, design, inspect, and direct construction, production, and maintenance activities.

Based on an evaluation of their work, transfer students who have a related associate degree from a regionally accredited institution may be admitted to the bachelor's degree program at the junior level.

## program Educational Objectives

Educational objectives for the mechanical engineering technology programs have been developed by faculty and the program industrial advisory committee to support the university, the college, and the School of Engineering Technology missions. Graduates of the MET associate degree program function as assistants in the design, drafting and testing of mechanical products, equipment and processes. Bachelor's degree graduates assume greater responsibility in the design and testing of mechanical products, processes, and equipment.

During their first few years after completion of the mechanical engineering technology program at YSU, graduates will have demonstrated the ability to:

- Work competently in technical and professional careers related to the field of mechanical engineering technology.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.
- Achieve recognition and/or compensation consistent with their educational achievements.

## Accreditation and Registration

The mechanical engineering technology bachelor program is accredited by the ETAC Accreditation Commission of ABET, <http://www.abet.org>. In most states, including Ohio, West Virginia and Pennsylvania, bachelor's degree graduates are qualified to take the Fundamentals of Engineering (FE) exam, and, with sufficient work experience, the Professional Engineers (PE) exam. Graduates are also qualified to apply to the National Institute for Certification in Engineering Technologies (NICET) for certification procedures in various specialty areas, depending on academic major and employment area.

Date of last campus visit: October, 2011

Accredited through: 2018

Next campus visit: October, 2017

Link to accrediting body: ABET (<http://www.abet.org>)

COURSE	TITLE	S.H.
<b>General Education Courses:</b>		
MATH 2670	Applied Calculus 2	5
CMST 1545	Communication Foundations	3
GER SPA		3
GER SPA		3
GER SS		3
GER AH		3
<b>Total GER Credit Hours: 20 s.h.</b>		
<b>Courses in the Major:</b>		
MET 3720	Mechanisms	3
MET 3707	Machine Design 2	3
EET 3725 & 3725L	Electromechanical Systems and Electromechanical Systems Lab	4
MET 3705	Thermodynamics	4

CCET 3705	Computing for Technologists	3
MET 4860 & 4860L	Robotics Technology and Robotics Technology Laboratory	3
MET Elective (2 Required)		6
MET 3710	Tool Design	
MET 4812 & 4812L	Numerical Control and Numerical Control Lab	
MET 4890	Special Topics in Mechanical Engineering Technology	
ENTC 4895	Independent Engineering Technology Project	
MET 3711	Heat and Power Cycles	4
MET 4810	Manufacturing Systems Analysis	3
ISEN/MGT Elective		3
ISEN 3720	Statistical Quality Control	
MGT 3725	Fundamentals of Management	
MGT 2604	Legal Environment of Business 1	
MET 4870	Applied Finite Element Method	3
MET 4820	Machine Systems	3
<b>Total Major Credit Hours: 42 s.h.</b>		

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
MATH 1513	Algebra and Transcendental Function	5
ENGL 1550	Writing 1	3
CCET 1503	CAD Technology	2
CCET 1504	Drafting and Plan Reading	2
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
MET 1515	Mechanics 1	3
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
MATH 1570	Applied Calculus 1	4
MET 2606	Solid Modeling	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
MET 2616	Mechanics 2	3
MET 3714 & 3714L	Fluid Mechanics and Fluid Mechanics Laboratory	5
PHYS 1501	Fundamentals of Physics 1	4
Arts & Humanities GER <sup>3</sup>		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MET 2630 & 2630L	Manufacturing Techniques and Manufacturing Techniques Laboratory	4
MET 3706	Machine Design 1	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGL 1551	Writing 2	3
Social Science GER <sup>3</sup>		3
<b>Semester Hours</b>		<b>18</b>
<b>Year 3</b>		
<b>Fall</b>		
MET 3720	Mechanisms	3
MET 3707	Machine Design 2	3

EET 3725 & 3725L	Electromechanical Systems and Electromechanical Systems Lab	4
MATH 2670	Applied Calculus 2	5
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MET 3705	Thermodynamics	4
CCET 3705	Computing for Technologists	3
MET 4860 & 4860L	Robotics Technology and Robotics Technology Laboratory	3
CMST 1545	Communication Foundations	3
MET Elective <sup>1</sup>		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
MET 3711	Heat and Power Cycles	4
MET 4810	Manufacturing Systems Analysis	3
MET Elective <sup>1</sup>		3
Social Science GER <sup>3</sup>		3
Arts and Humanities GER <sup>3</sup>		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
MET 4820	Machine Systems (Capstone)	3
MET 4870	Applied Finite Element Method	3
Social & Personal Awareness GER <sup>3</sup>		3
Social & Personal Awareness GER <sup>3</sup>		3
ISEN/MGT Elective <sup>2</sup>		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>129</b>

- <sup>1</sup> Choose two of MET 3710 Tool Design, MET 4812 Numerical Control/MET 4812L Numerical Control Lab, MET 4890 Special Topics in Mechanical Engineering Technology, EET 4880 Electrical and Mechanical Facilities Design, ENTC 4895 Independent Engineering Technology Project
- <sup>2</sup> Choose one ISEN 3720 Statistical Quality Control, ISEN 3724 Engineering Economy, MGT 3725 Fundamentals of Management, or MGT 2604 Legal Environment of Business 1
- <sup>3</sup> General Education Requirement: see "Schedule of Classes" for details  
SPA = Social & Personal Awareness (2 required for BSAS)  
SS = Social Sciences (2 required for BSAS)  
AH = Arts & Humanities (2 required for BSAS)

## Electives

COURSE	TITLE	S.H.
<b>MET Electives</b>		
Select two of the following:		2-8
MET 3710	Tool Design	
MET 4812 & 4812L	Numerical Control and Numerical Control Lab	
MET 4890	Special Topics in Mechanical Engineering Technology	
EET 4880	Electrical and Mechanical Facilities Design	
ENTC 4895	Independent Engineering Technology Project	
<b>ISEN/MGT Electives</b>		
Select one of the following:		3
ISEN 3720	Statistical Quality Control	
ISEN 3724	Engineering Economy	
MGT 3725	Fundamentals of Management	

MGT 2604	Legal Environment of Business 1	
<b>Total Semester Hours</b>		<b>5-11</b>

## PROGRAM OUTCOMES

Graduates in mechanical engineering technology will achieve the following learning outcomes by the time they graduate:

- mastery of knowledge, skills, and tools of the discipline
- ability to apply knowledge to solve engineering problems
- ability to conduct, analyze, and interpret experiments
- ability to design systems, components, and processes
- ability to work effectively in teams
- ability to identify, analyze, and solve technical problems
- ability to communicate effectively
- recognition of the need for professional development
- ability to understand professional, ethical, social, and diversity responsibilities
- knowledge of engineering solutions in a societal and global context
- commitment to quality, timeliness, and continuous improvement

## Minor in Electrical Engineering Technology

COURSE	TITLE	S.H.
<b>Required Courses</b>		
EET 1501 & 1501L	Circuit Theory 1 and Circuit Theory 1 Lab	4
EET 1502 & 1502L	Circuit Theory 2 and Circuit Theory 2 Lab	4
EET 2620 & 2620L	Digital Electronics and Digital Electronics Lab	3
EET 3712 & 3712L	Programmable Logic Controllers and PLC Laboratory	4
EET 3735 & 3735L	Microprocessor Architecture and Programming and Microprocessor Architecture and Programming Laboratory	3
EET 3745 & 3745L	Microprocessor Systems 2 and Microprocessor Systems 2 Lab	3
<b>Total Semester Hours</b>		<b>21</b>

## Department of Geological and Environmental Sciences

Department of Geological and Environmental Sciences

Room 2120 Moser Hall

(330) 941-3612 Fax: (330) 941-1754

Department Chairperson: Dr. Jeffrey C. Dick (jcdick@ysu.edu)

## Welcome

Welcome to the Department of Geological and Environmental Sciences at Youngstown State University. Our programs in Environmental Studies and Geology are distinguished by our applied approach to learning. Our dedicated faculty consists of six PhD degree professors and nine adjunct faculty members with strong backgrounds in academics and real world experience. Our courses and degree programs prepare graduates for immediate employment and graduate studies opportunities by going well beyond the traditional class room experiences with a variety of field experiences, study abroad experiences, access to high-end analytical laboratories and

instrumentation, internship opportunities and faculty-led undergraduate research experiences. Our laboratory facility instruments include plasma spectrophotometry, ion chromatography, gas chromatography, laser particle size analysis and a wide variety of bench-top instrumentation. In addition, students have access to TEM, SEM, XRF, XRD and other high-end end instrumentation through the Department of Chemistry.

The Department has a strong emphasis on remote sensing and geophysical investigations. Field instruments include a DJI Matrice 600 drone with infrared and optical imaging capability, ground penetrating radar, hand held x-ray fluorescence, 24 channel refraction seismograph, earth resistivity, proton magnetometer, high resolution GPS and total station surveying equipment.

Graduates of our programs find personally rewarding and high-paying careers in the fields of petroleum geology, environmental geology, public health, engineering geology, government regulations and compliance, mining, hydrogeology, environmental safety, geophysics and related fields. Many graduates choose to continue their education by pursuing master of science and doctoral degrees in geology and environmental science.

The Department of Geological and Environmental Sciences is also the home of the Clarence R. Smith Mineral Museum, a world-class collection of rare and amazing minerals and fossils from around the world. The museum is free and open to the public.

#### Chair

**Jeffrey C. Dick**, Ph.D., Professor, Chair

#### Professor

**Isam E. Amin**, Ph.D., Professor

**Felicia P. Armstrong**, Ph.D., Associate Professor

**Raymond E. Beiersdorfer**, Ph.D., Professor

**Alan M. Jacobs**, Ph.D., Professor

**Colleen McLean**, Ph.D., Associate Professor

#### Part-Time Faculty

**Diana M. Alexander**, M.S.

**Susie L. Beiersdorfer**, M.S.

**Anna C. Woodard (Draa)**, M.S.

**Lawrence P. Gurlea**, M.S.

**Heidi L. Haug**, M.S.

**Thomas E. Jordan**, Ph.D.

**Tamara M. Kerr-Sahli**, M.S.

**Daniel J. Kuzma**, M.S.

**Debbie A. M. Smith**, M.S.

## Majors

- BS in Environmental Studies (p. 537)
- BA in Geology (p. 539)
- BS in Geology (p. 540)

## Minors

- Minor in Engineering Geology (p. 542)
- Minor in Environmental Geology (p. 542)
- Minor in Environmental Studies (p. 542)

- Geoscience Minor (p. 542)
- Natural Gas and Water (p. 543)

## Geology

### GEOL 1500 Environmental Geology 4 s.h.

An introductory course that examines interactions between human society and our changing planet, the affects of natural/geologic hazards on humans, and anthropogenic (human-caused) impacts on nature, geology, and society. Three hours of lecture and two hours lab per week.

**Gen Ed:** Environmental Sustainability, Natural Science, Social and Personal Awareness.

### GEOL 1500L Environmental Geology Laboratory 0 s.h.

Environmental Geology Laboratory.

### GEOL 1504 The Dynamic Earth 3 s.h.

An examination of earth as consisting of interrelated geologic systems which are dynamic and constantly changing. Includes study of surface, lithologic and tectonic systems.

**Gen Ed:** Natural Science.

### GEOL 1505 Physical Geology 4 s.h.

A study of the various physical and chemical processes acting on and within the earth, and their products. The laboratory component includes identification of minerals and rocks, and the interpretation of topographic and geologic maps. Three hours of lecture, two hours of lab per week.

**Gen Ed:** Natural Science.

### GEOL 1505H Honors Physical Geology 4 s.h.

Concepts of the earth as a dynamic planet, investigated through a variety of lectures, text and journal readings, and independent library-research assignments.

**Prereq.:** Eligibility for the Honors Program or consent of instructor.

**Gen Ed:** Natural Science.

### GEOL 1505L Physical Geology Laboratory 0 s.h.

Physical Geology Laboratory.

### GEOL 1508 Geology of Gemstones and Allied Minerals 3 s.h.

Formation, occurrence, and distribution of gem materials. Properties and identification of gem stones; factors affecting their value. Introduction to synthetic/artificial gem materials. Not applicable toward the geology major.

### GEOL 1509L Geoscience Laboratory 1 s.h.

Problem solving and assessment of case histories to illustrate the scientific method and geologic principles and concepts. Two hours laboratory per week.

### GEOL 1510 Geology of National Parks 3 s.h.

Geologic history of national parks; geologic processes observed in North American parks and Hawaii. Simulated field trips to several major parks. Not applicable toward the geology major.

### GEOL 2602 Introduction to Oceanography 3 s.h.

Survey of geological, physical, chemical, and biological oceanography; description and distribution of properties and their relationship to circulation, shorelines, ocean features, sediments, organisms, and environments.

**Gen Ed:** Natural Science.

### GEOL 2605 Historical Geology 4 s.h.

An in depth study of the origin and evolution of the Earth and its systems and life forms throughout geologic time. The course is designed to develop student critical thinking skills through analysis of concepts and issues, and the integration of maps, lithologic information, and fossil information. Three hours lecture and two hours lab per week. Field trips are an integral part of the course.

**Prereq.:** GEOL 1505 and GEOL 1505L.

### GEOL 2611 Geology for Engineers 3 s.h.

Study of geologic principles, processes, and materials; focus on recognition of geologic factors as they apply to engineering operations and projects. Laboratory work includes examination of minerals, rocks, maps, and case histories. Two hours lecture, two hours laboratory per week.

**Gen Ed:** Natural Science.

**GEOL 2614 Mesozoic Dinosaurs and Other Reptiles 3 s.h.**

A survey of major Mesozoic dinosaurs and reptiles, including discussion of their environment, organic evolution, diversity, and controversies pertaining to their classification and extinction.

**Prereq.:** GEOL 3713.

**GEOL 2615 Geology and the Environment 1 3 s.h.**

A study of the interrelationship of human activity and the geologic environment. An examination of geologic hazards, geologic considerations in waste disposal, resource utilization, and land use.

**Prereq.:** GEOL 1504 or GEOL 1505 or GEOL 2611.

**GEOL 2620 Intro to Natural Gas and Water Resources 3 s.h.**

A survey of the history, science and technology of oil and gas exploration and production and water resource related issues with an emphasis on non-conventional production in the Appalachian Basin.

**Prereq.:** MATH 1513, CHEM 1516 and CHEM 1516L.

**GEOL 2699 Individual Study 1-3 s.h.**

The introductory study of problems or issues in geology, or a review of literature relating to a specific geologic topic. A maximum of 3 s.h. may be taken.

**Prereq.:** 8 s.h. in Geology, consent of department chairperson and instructor.

**GEOL 3700 Mineralogy 4 s.h.**

The occurrence, composition, and crystallography of common and economically important minerals. Identification of minerals using physical, chemical, optical and x-ray properties. The theory and use of the polarizing microscope and its application to the study of crystalline material, including asbestos materials. Two hours lecture, four hours of lab per week.

**Prereq.:** CHEM 1515 (may be concurrent) and GEOL 2605.

**GEOL 3701 Geomorphology 3 s.h.**

A study of landforms and the processes which create them, using aerial photographs, geologic maps, and topographic maps. The laboratory work emphasizes recognition and interpretation of landforms. Two hours lecture, two hours laboratory per week.

**Prereq.:** GEOL 2605.

**GEOL 3702 Glacial Geology 3 s.h.**

A study of glacier types: their origin, movement, erosional/depositional contributions, and their relationship to various non-glacial features. Emphasis is on the Pleistocene glacial succession in North America. Field trips are an integral part of the course.

**Prereq.:** GEOL 2605.

**GEOL 3704 Structural Geology 2 s.h.**

Description and interpretation of geologic structures, mechanical properties; stress-strain relationships, regional structure of North America, and major tectonic theories. Geology majors must take GEOL 3704L concurrently with GEOL 3704.

**Prereq.:** GEOL 3701 and GEOL 3718.

**GEOL 3704L Structural Geology Laboratory 1 s.h.**

Structural geology techniques and analyses, including orthographic solutions, stereographic projections, and interpretation of maps. Two hours lab per week.

**Prereq. or concurrent:** GEOL 3704.

**GEOL 3706 Geology of Economic Mineral Deposits 3 s.h.**

A study of the occurrence, origin, and distribution of mineral deposits, with special attention to their economic use. Field trips are mandatory.

**Prereq.:** GEOL 3700.

**GEOL 3709 Subsurface Investigations 3 s.h.**

An introduction to subsurface investigative methods that integrate principles of geophysics, geochemistry, interpretation of well logs and other bore hole data, outcrops and published information in the solution of actual geological problems. Two hours lecture, two hours lab per week. Students are expected to perform field work in addition to regularly scheduled class time.

**Prereq.:** GEOL 3701; MATH 1571 recommended.

**GEOL 3714 Principles of Paleontology 3 s.h.**

A detailed study of fossil invertebrates, including their origin, classification, paleoecology and stratigraphic utilization. Two hours lecture and two hours lab per week.

**Prereq.:** GEOL 2605.

**GEOL 3716 Environmental Impact of Abandoned Mines 3 s.h.**

Mining methods, types of mines, information retrieval, mine stabilization, and the effects of abandoned mines on environmental and human activities, especially of deep coal mines in the Mahoning valley and adjacent areas. Two hours lecture and two hours lab per week.

**Prereq.:** GEOL 2605.

**GEOL 3718 Igneous and Metamorphic Petrology 4 s.h.**

An in-depth study of the petrogenesis of igneous and metamorphic rocks based on their chemical and petrographic characteristics. Three hours lecture, three hours lab per week.

**Prereq.:** GEOL 3700.

**GEOL 3720 Field Investigations in Geology 1-4 s.h.**

A field-based approach to the study of geologic concepts and problems. Class and travel supervised by the Geology faculty; location, duration of stay, hours, credit, and grading criteria dependent on the site and nature of the geologic concepts and problems investigated. The course may be repeated. A maximum of 4 s.h. may be applied toward Geology major requirements.

**Prereq.:** By permit only.

**GEOL 3720H Field Investigation Geology 1-4 s.h.**

A field-based approach to the study of geologic concepts and problems. Class and travel supervised by the Geology faculty; location, duration of stay, hours, credit, and grading criteria dependent on the site and nature of the geologic concepts and problems investigated. The course may be repeated. A maximum of 4 s.h. may be applied toward Geology major requirements.

**Prereq.:** By permit only.

**GEOL 3750 Geoscience Seminar 1 s.h.**

Guest lecture and student presentation forum course designed to provide students with exposure to a broad range of topics and current research relevant to the geosciences. Course may be repeated.

**Prereq.:** GEOL 1505.

**GEOL 3775 Research Methods for Undergraduates 1 s.h.**

This course introduces the student to the fundamental and practical aspects of conducting research. The course emphasizes the scientific method, research methodologies, literature review, writing research proposals, and how research results are presented. Learn the process of developing, funding and conducting research. This course must be taken prior to any undergraduate research.

**Prereq.:** junior or senior standing.

**GEOL 4804 Ground Water 3 s.h.**

A study of the geologic and hydrologic factors controlling the occurrence and behavior of water beneath the earth's surface. Two hours lecture, two hours lab per week.

**Prereq.:** GEOL 2605; MATH 1571 recommended.

**GEOL 4812 GIS Applications to Geology 3 s.h.**

This course covers a variety of geologic applications of GIS software; topics covered include: flood mapping, landslide hazard mapping, modeling soil erosion, watershed delineation, etc. Although you will be exposed to the basic functions of ArcGIS, the course is designed primarily to provide experience in obtaining, managing, interpreting, displaying, and presenting geo-spatial data in a meaningful context.

**Prereq.:** GEOL 3701, GEOG 2611.

**GEOL 4820 Water Pollution Control 3 s.h.**

Sources and prevention methods of water pollution, human activities and natural conditions that influence water quality, protection methods and regulations of water quality, contamination and remediation of groundwater.

**Prereq.:** GEOL 1505 or ENST 2600.



**GEOL 4824 Tectonics 3 s.h.**

Geodynamics and the workings of plate tectonics. Kinetics and dynamics of plate motion, plate driving forces, thermal structure of the earth, and thermal convection in the earth. Tectonic and structural features on the earth. Geophysical, stratigraphic and structural signatures of extensional rifting, strike-slip faulting, subduction zones, plate collisions and mountain belts.

**Prereq.:** GEOL 3704.

**GEOL 4825 Geophysical Well Log Analysis 3 s.h.**

An introduction to geophysical well logging, analysis, and interpretation applications in the oil and gas industry. Topics include well construction, drilling mud properties, and interpretation of gamma ray, SP, resistivity, sonic, neutron density, and cement bond logs.

**Prereq.:** GEOL 2620 or permission of instructor, GEOL 3704, PHYS 1502 or PHYS 2611 recommended.

**GEOL 4830 Senior Thesis 4 s.h.**

Designed to be completed during the student's senior year and is expected to be a significant research-based contribution to the geosciences. A typical senior thesis topic will support the research program of full-time GES faculty. Students may develop their own research topic provided they have the support of one or more full-time GES faculty.

**Prereq.:** Junior standing, minimum cumulative GPA of 3.0, submission of approved research proposal, permission of GES Chairperson.

**GEOL 4899 Special Topics 1-3 s.h.**

Selected aspects of geology not covered in existing courses. Topics to be announced each time course is offered. May be repeated for different topics.

**Prereq.:** appropriate 3700- or 4800- geology course and permission of the chairperson.

**GEOL 5802 Sedimentology and Stratigraphy 3 s.h.**

The study and interpretation of sedimentary rocks, including physical characteristics, petrography, depositional environments, principles of correlation, and principles of basin analysis. Two hours lecture, two hours lab per week.

**Prereq.:** GEOL 3704.

**Gen Ed:** Capstone.

**GEOL 5805 Special Problems in Geology 1-4 s.h.**

An in-depth study of a specific problem in one of the branches of geology. The problem depends on the student's interest and qualifications and the equipment availability. A maximum of 8 s.h. may be taken.

**Prereq.:** 8 s.h. in Geology, consent of the department chairperson and instructor.

**GEOL 5810 Groundwater Resource Evaluation 3 s.h.**

Geologic and hydrologic interpretation of groundwater data with emphasis on regional groundwater resources, groundwater management, groundwater supplies, and design and construction of water wells.

**Prereq.:** GEOL 2605 or permission of instructor.

**GEOL 5815 Geology and the Environment 2 3 s.h.**

In-depth examination of earth processes, earth resources, and properties of earth materials as they relate to human activities, and their geologic consequences.

**Prereq.:** GEOL 2615 or ENST 2600.

**GEOL 5817 Environmental Geochemistry 3 s.h.**

An application of low-temperature aqueous geochemistry and geochemical computer modeling to environmental problems such as acid mine drainage, geochemical cycling of trace elements and nutrients, hazardous waste remediation, nuclear waste disposal, and surface and ground-water contamination.

**Prereq.:** GEOL 3700 and CHEM 1516.

## Environmental Studies

**ENST 1500 Introduction to Environmental Science 3 s.h.**

Basic environmental science literacy for informed citizens as inhabitants and stewards of Earth. The use of science and the scientific method to understand, assess, and manage the environment to improve human health, conserve energy and resources, preserve nature, and sustain quality of life.

**Gen Ed:** Environmental Sustainability, Natural Science, Social and Personal Awareness.

**ENST 1500L Introduction to Environmental Science Lab 1 s.h.**

The use of the scientific method to explore various fields in environmental science including water quality, risk assessment, biodiversity and mineral uses. This field and laboratory work supplements ENST 1500.

**Prereq. or concurrent:** ENST 1500.

**ENST 2600 Foundations of Environmental Studies 3 s.h.**

A survey of the principles and issues of environmental studies including basic ecology, biodiversity, hazardous and solid waste management, sustainable development, energy production and conservation, environmental ethics, air, water and soil pollution.

**ENST 2600L Foundations of Environmental Studies Laboratory 1 s.h.**

Laboratory and field investigations identified in ENST 2600. Emphasis on the scientific method, problem solving and critical thinking skills in environmental assessment techniques, active exploration of environmental concerns and their solutions. Three hours per week. Three to five Saturday field trips required in lieu of some laboratory time.

**ENST 2650 Independent Study 1-3 s.h.**

The introductory study of problems or issues in Environmental Studies or a review of the literature relating to a specific environmental topic. May be repeated for different topics for a total of 6 s.h.

**Prereq.:** Permission of the director.

**ENST 3700 Environmental Chemistry 4 s.h.**

Study of the fundamental chemical principles underlying common environmental problems, including water pollution, toxicology, chemical biotransformation and degradation. Chemistry of pesticides, petroleum hydrocarbons and heavy metals are also investigated.

**Prereq.:** ENST 2600 and CHEM 1515; Concurrent with: ENST 3700L Environmental Chemistry Lab.

**ENST 3700L Environmental Chemistry Lab 0 s.h.**

Students will investigate various analytical and instrumental techniques used in the examination of chemicals in environmental media (soil, water, biota). Includes proper handling, storage and precautions in the laboratory and the environment.

**Concurrent with:** ENST 3700 Environmental Chemistry.

**ENST 3730 Air Quality 3 s.h.**

Sources, dispersions, consequences and abatement of air pollutants emanating from industry and transportation. Topics also include the history, legislation, standards and economics of air pollution.

**Prereq.:** CHEM 1515.

**ENST 3750 Seminar 1 s.h.**

Guest lecturers will examine current topics in environmental issues, including current research, application of technology, management strategies to reduce environmental impact, environmental ethics, policy, etc.

**Prereq.:** ENST 2600.

**ENST 3751 Water Quality Analysis 3 s.h.**

Introduction to physical, chemical, and biological measurements of water quality. Sample collection and laboratory analysis of natural waters, drinking water, and wastewater. Interpretation of environmental data. Two hours lecture and three hours laboratory per week. Identical to CEEN 3751.

**Prereq.:** CEEN 3736 OR ENST 2600; CHEM 1515.

**ENST 3751L Water Quality Analysis Lab 0 s.h.**

Laboratory experience in the analysis of natural waters, drinking water and wastewater. Emphasizes procedures for the collection and interpretation of data on current environmental problems. Three hours laboratory per week. Must be taken concurrently with ENST 3751. Identical to CEEN 3751.).

**Prereq.:** Must be taken concurrently with ENST 3751 (Note: already in course description).

**ENST 3775 Research Methods for Undergraduate 1 s.h.**

This course introduces the student to the fundamental and practical aspects of conducting research. The course emphasizes the scientific method, research methodologies, literature review, writing research proposals and the presentation of research results. Students will gain valuable experience in identifying a problem, developing a research plan and summarizing results. This course must be taken prior to engaging in undergraduate research.

**Prereq.:** junior or senior standing.

**ENST 3780 Environmental Research 1-4 s.h.**

A research project that involves problem identification, hypothesis formation, experimentation, data analysis and interpretation. The research may be either basic or applied.

**Prereq.:** Junior standing in ENST and permission of the director.

**ENST 3781 Environmental Sampling Methods 3 s.h.**

Sampling design, including number and types of samples and procedures for taking representative samples of air, water, soil and contents of storage and shipping containers. Two hours of lecture, three hours of laboratory.

**Prereq.:** ENST 2600 and STAT 2601 or equivalent.

**ENST 3790 Internship/Cooperative 1-4 s.h.**

Students work under the direction of a faculty supervisor in a governmental agency or in the private sector as environmental specialists. An activities log and summary report are required. The course may be repeated.

**Prereq.:** Junior standing in ENST and permission of the director.

**ENST 4822 Water Pollution Control 3 s.h.**

Sources and prevention methods of water pollution, human activities and natural conditions that influence water quality, protection methods and regulations of water quality, contamination and remediation of groundwater. 3.s.h.

**Prereq.:** GEOL 1505 or ENST 2600.

**ENST 4840 Topics 1-3 s.h.**

Independent study of special topics not included in available courses. Students do extensive reading in, and write a formal report on, a specific area of Environmental Studies.

**Prereq.:** Junior standing or consent of instructor.

**ENST 5800 Environmental Impact Assessment 3 s.h.**

Analysis of the potential environmental effects resulting from the construction of buildings, highways, parking lots, mines, reservoirs, and waste disposal facilities. Standard procedures are taught for evaluating and reporting the environmental impact of these activities.

**Prereq.:** ENST 5860 and senior standing.

**ENST 5810 Environmental Safety 1 s.h.**

The proper use of environmental monitoring instruments and personal protective gear. Participation in a series of realistic, hands-on simulation exercises that address a variety of waste clean-up situations. Class meets three hours per week.

**Prereq.:** ENST 2600 or equivalent experience.

**ENST 5820 Sustainability, Climate Change, and Society 3 s.h.**

This course explores environmental, economic, and social aspects of sustainable development, with an emphasis on economy and society. Through topics such as water, food, and climate change, we examine the role of humans and institutions in sustainable development and possibilities for reconfiguring relationships between our institutions and the natural world.

**Prereq.:** junior, senior or graduate level standing.

**ENST 5830 Risk Assessment 3 s.h.**

An in-depth study of human health and ecological risk assessment. Includes hazard identification, dose-response evaluation, exposure assessment, and the characterization, limitations, management, communication, and perceptions of risk. Standard procedures to conduct a site-specific baseline risk assessment, to calculate risk-based concentrations that may be used to develop preliminary remediation goals, and to evaluate human health risks during the implementation of remedial alternatives.

**Prereq.:** ENST 3700, ENST 5860, and senior or graduate standing.

**Gen Ed:** Capstone.

**ENST 5860 Environmental Regulations 3 s.h.**

An examination of federal and state regulations that relate to cleanup of abandoned waste sites, management of waste from current waste generators, development of new hazardous products and chemicals, safety and health issues, and control of pollution into air and water.

**Prereq.:** ENST 2600 or equivalent.

**ENST 5888 Environmental Biotechnology 4 s.h.**

Lectures will cover the use of microbes for solving environmental problems. In the laboratory, teams of students will design and implement experiments in bioremediation. This course is intended for students in biology, environmental studies, chemistry, and engineering. Two hours lecture and four hours lab.

**Prereq.:** CHEM 3719 or CEEN 3736.

## Bachelor of Science in Environmental Studies

The environmental studies program leading to a Bachelor of Science (BS) degree will prepare students to enter the job market as environmental specialists or to continue in their education in a graduate program. Students in environmental studies will complete:

- 34 s.h. of environmental studies courses
- 26-27 s.h. of support courses in science and mathematics
- a prescribed minor of 18 s.h

The minor must include 9 s.h. of upper division courses (3000 level and above) and may be in:

- chemistry
- biological sciences
- environmental geology
- environmental geography
- economics
- political science

Credits may include those required for support science and mathematics, as applicable. The courses for the minor must be offered in one department. The student is welcome to take additional courses in other departments as electives. Students are encouraged to develop teamwork, communication, computer and problem-solving skills. This degree may be earned in eight semesters if students average 15.5 hours per semester.

Majors transferring in from other programs at YSU or from other universities may use up free electives and/or require additional semesters or summers of study. College and university requirements apply (total hours, upper division hours, general education goals, etc.). One writing intensive, oral intensive, critical thinking intensive, and capstone course can be satisfied within this program.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	

<b>Mathematics Requirement</b>		
Arts and Humanities		6
Natural Science		6
Social Science		6
Social and Personal Awareness		6
General Education Elective		3
<b>Major Requirements</b>		
ENST 2600 & 2600L	Foundations of Environmental Studies and Foundations of Environmental Studies Laboratory	4
ENST 3700	Environmental Chemistry	4
ENST 3730	Air Quality	3
ENST 3750	Seminar	1
ENST 3751	Water Quality Analysis	3
ENST 3780	Environmental Research	2
ENST 3781	Environmental Sampling Methods (b)	3
ENST 3790	Internship/Cooperative	4
ENST 5800	Environmental Impact Assessment (c)	3
ENST 5810	Environmental Safety	1
ENST 5830	Risk Assessment (d)	3
ENST 5860	Environmental Regulations	3
<b>Support Courses in Science and Mathematics</b>		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory <sup>1</sup>	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory <sup>1</sup>	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory <sup>1</sup>	4
CHEM 1515R & CHEM 1516R	Recitation for General Chemistry 1 and Recitation for General Chemistry 2 (optional)	
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory (satisfies GER Science or Lab) <sup>1</sup>	4
MATH 1571 or MATH 1570	Calculus 1 <sup>2</sup> or Applied Calculus 1	4
<b>Support Courses</b>		
Select two of the following:		6-7
PHYS 1501	Fundamentals of Physics 1 (recommended for Technology minors) <sup>3</sup>	
GEOG 2630	Weather (recommended for Geography minors)	
STAT 3717 or STAT 2601	Statistical Methods (recommended for upper-division credit) or Introductory Statistics	

**Total Semester Hours** 99-100

- <sup>1</sup> Satisfies General Education Science or Science Lab Domain.
- <sup>2</sup> Satisfies General Education Mathematics Domain.
- <sup>3</sup> Satisfies General Education Science Domain.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory (R, NS)	4
ENGL 1550	Writing 1 (GE)	3
ENST 2600 & 2600L	Foundations of Environmental Studies and Foundations of Environmental Studies Laboratory (R)	4

GER SS or AH course		3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory (R, NS)	4
ENGL 1551	Writing 2 (GE)	3
Elective Support Course (R) <sup>1</sup>		3
GER SS or AH course		3
GER SPA Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
MATH 1570 or MATH 1571	Applied Calculus 1 (GE) or Calculus 1	4
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory (R, NS)	4
CMST 1545	Communication Foundations (GE)	3
ENST 3730	Air Quality (R)	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory (R)	4
Support Course (R) <sup>1</sup>		3
GER SPA Course		3
GER SS or AH course		3
Elective Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
ENST 3700 & 3700L	Environmental Chemistry and Environmental Chemistry Lab (R)	4
ENST 3781	Environmental Sampling Methods (R)	3
ENST 5860	Environmental Regulations (R)	3
Minor Course		3
Minor Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENST 5800	Environmental Impact Assessment (R)	3
ENST 3751	Water Quality Analysis (R)	3
ENST 3750	Seminar (R)	1
Minor Minor Course		3
Minor Course > 3700		3
GER SS or AH course		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
ENST 5830	Risk Assessment (R)	3
ENST 3790	Internship/Cooperative (R)	4
Minor Course		3
Minor Course		3
Upper Division Course > 3700		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENST 3780	Environmental Research (R)	2-4
ENST 5810	Environmental Safety (R)	1
Minor Course > 3700		3

Minor Course > 3700	3
Upper Division Course > 3700	3
<b>Semester Hours</b>	<b>12-14</b>
<b>Total Semester Hours</b>	<b>120-122</b>

<sup>1</sup> Elective support courses, select two of the following: PHYS 1501 Fundamentals of Physics 1, GEOG 2630 Weather, or STAT 2601 Introductory Statistics or STAT 3717 Statistical Methods.

Request a Graduation Evaluation after completing 80-85 s.h. from the STEM Advising Center, 2325 Moser Hall, (330) 941-2512.

## Learning Outcomes

The student learning outcomes for the BS in environmental studies are as follows:

- Communicate effectively using the language, concepts, and models of environmental science in written, visual, and numerical formats.
- Properly apply the scientific method to research an environmental problem and formulate conclusions.
- Demonstrate ability to apply appropriate field- and laboratory-based methods (of acquiring, quantitatively and qualitatively analyzing and interpreting environmental data and information).
- Demonstrate understanding of pollution sources, pollution prevention strategies, and waste management.

## Bachelor of Arts in Geology

Students may choose to major in Geology for the degree of Bachelor of Science or Bachelor of Arts.

The Bachelor of Science and the Bachelor of Arts in Geology both prepare students for professional employment. The Bachelor of Science degree also prepares students for graduate study in geology and related fields. The dominant fields of employment include:

- environmental geology
- engineering geology
- hydrogeology
- geophysics
- government compliance and regulation
- mining
- petroleum geology
- other fields within the energy industry

The Bachelor of Science and the Bachelor of Arts degrees in Geology can be completed in eight semesters if students average 16 hours of coursework per semester.

For more information, visit the Department of Geological and Environmental Sciences. (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/department-geological-environmental-sciences>)

The Bachelor of Arts degree requires the successful completion of a minimum of 72 s.h. of core and elective courses.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		

Arts and Humanities	6
Natural Sciences	6
Social Science	6
Social and Personal Awareness	6
General Education Elective / First Year Experience	3

### Major Requirements

GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
ENST 2600 & 2600L	Foundations of Environmental Studies and Foundations of Environmental Studies Laboratory	4
GEOL 2605	Historical Geology	4
GEOL 3700	Mineralogy	4
GEOL 3701	Geomorphology	3
GEOL 3704 & 3704L	Structural Geology and Structural Geology Laboratory	3
GEOL 3718	Igneous and Metamorphic Petrology	4
GEOL 3750	Geoscience Seminar	1
GEOL 5802	Sedimentology and Stratigraphy (Capstone course)	3
MATH 1570	Applied Calculus 1	4

### Electives

Science Electives I:		
Select a minimum of 18 s.h. from the following:		18
ASTR 2609	Moon and Planets	
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	
GEOG 2630	Weather	
MATH 2670	Applied Calculus 2	
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1	
GEOL 2602	Introduction to Oceanography	
GEOL 2615	Geology and the Environment 1	
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2	
STAT 3717	Statistical Methods	

Science Electives II:		
Select a minimum of 20 s.h. from the following:		20
ENST 3700 & 3700L	Environmental Chemistry and Environmental Chemistry Lab	
GEOL 3702	Glacial Geology	
GEOL 3706	Geology of Economic Mineral Deposits	
GEOL 3709	Subsurface Investigations	
GEOL 3714	Principles of Paleontology	
GEOL 3716	Environmental Impact of Abandoned Mines	
GEOL 3720	Field Investigations in Geology	
ENST 3751 & 3751L	Water Quality Analysis and Water Quality Analysis Lab	
ENST 3780	Environmental Research	
ENST 3781	Environmental Sampling Methods	
GEOL 4804	Ground Water	
GEOL 4824	Tectonics	
GEOL 4825	Geophysical Well Log Analysis	
GEOL 4899	Special Topics	

GEOL 48XX	Geology Field Camp (4 s.h. minimum)
GEOL 5805	Special Problems in Geology
ENST 5810	Environmental Safety
GEOG 5810	Geographic Information Science 1
GEOG 5811	Geographic Information Science 2
GEOL 5810	Groundwater Resource Evaluation
GEOL 5815	Geology and the Environment 2
GEOL 5817	Environmental Geochemistry
ENST 5860	Environmental Regulations

Total Prescribed Semester Hours: 108-111 s.h.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
ENGL 1550	Writing 1	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
GER Arts and Humanities Elective		3
GEOL 3750	Geoscience Seminar	1
<b>Semester Hours</b>		<b>15</b>

<b>Spring</b>		
GEOL 2605	Historical Geology	4
ENGL 1551	Writing 2	3
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
GEOG 2626	World Geography	3
<b>Semester Hours</b>		<b>14</b>

#### Year 2

<b>Fall</b>		
GEOL 3700	Mineralogy	4
MATH 1570	Applied Calculus 1	4
GEOG 5810	Geographic Information Science 1	3
ENST 2600 & 2600L	Foundations of Environmental Studies and Foundations of Environmental Studies Laboratory	4
GEOL 3750	Geoscience Seminar (Optional)	1
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
GEOL 3718	Igneous and Metamorphic Petrology	4
Science Elective II		3-5
CMST 1545	Communication Foundations	3
Science Elective I		3-5
Science Elective I		3-5
<b>Semester Hours</b>		<b>16</b>

#### Year 3

<b>Fall</b>		
GEOL 3701	Geomorphology	3
FNLG 1550	Elementary Foreign Language	4
GER Social Science Elective		3
GEOL/ENST 3700+ Science Elective II		3-4
GEOL 3750	Geoscience Seminar (Optional)	1
Science Elective I		3-5
<b>Semester Hours</b>		<b>17</b>

<b>Spring</b>		
GEOL 3704 & 3704L	Structural Geology and Structural Geology Laboratory	3

FNLG 2600	Intermediate Foreign Language	4
GER Arts and Humanities		3
GEOL/ENST Science Elective II		3-4
ENST 5810	Environmental Safety	1
<b>Semester Hours</b>		<b>14</b>

#### Year 4

<b>Fall</b>		
GEOL 3750	Geoscience Seminar (Optional)	1
GER Social Personal Awareness		3
GEOL/ENST 3700+ Science Elective II		3-4
GEOL/ENST 3700+ Science Elective II		3-4
Elective Course		3
Elective Course		3

**Semester Hours 16**

<b>Spring</b>		
GEOL 5802	Sedimentology and Stratigraphy (Capstone Course)	3
Science Elective I		3-5
GEOL/ENST 3700+ Science Elective II		3-4
PHIL 2631	Environmental Ethics (GER Social and Personal Awareness)	3
Elective Course		3

**Semester Hours 15**

**Total Semester Hours 123**

Request a Graduation Evaluation after completing 80-85 s.h. from the STEM Advising Center, 2325 Moser Hall, (330) 941-2512.

## LEARNING OUTCOMES

The learning outcomes for the Bachelor of Science in Geology are as follows:

- Communicate effectively using the language, concepts, and models of geology in written, visual, and numerical formats.
- Properly apply the scientific method to research a geologic problem and formulate conclusions.
- Demonstrate ability to apply appropriate field- and laboratory-based methods (of acquiring, quantitatively and qualitatively analyzing, and interpreting geologic data and information).
- Demonstrate understanding of plate tectonics regarding the petrologic, stratigraphic, and structural evolution of continents and oceans.

## Bachelor of Science in Geology

Students majoring in Geology may pursue the Bachelor of Science degree or the Bachelor of Arts degree.

The Bachelor of Science and the Bachelor of Arts in Geology degrees both prepare students for professional employment. The Bachelor of Science degree also prepares students for graduate study in geology and related fields. The dominant fields of employment include:

- environmental geology
- engineering geology
- hydrogeology
- geophysics
- government compliance and regulation
- mining
- petroleum geology
- other fields within the energy industry

The Bachelor of Science and the Bachelor of Arts degrees in Geology can be completed in eight semesters if students average 16 hours of coursework per semester.

For more information, visit the Department of Geological and Environmental Sciences (<http://www.yzu.edu/academics/science-technology-engineering-mathematics/geology-major>).

The Bachelor of Science degree requires the successful completion of a minimum of 74 s.h. of core and elective courses. These courses include a Geology capstone experience of Geology Field Camp which is normally completed during summer following the junior year. Alternatively, students may opt for an internship (STEM 4890 STEM Internship) experience or a Senior Thesis research experience (GEOL 4830 Senior Thesis).

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies 12		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities 6		
Natural Science 6		
Social Science 6		
Social and Personal Awareness 6		
General Education Elective / First Year Experience 3		
<b>Major Requirements</b>		
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
ENST 2600 & 2600L	Foundations of Environmental Studies and Foundations of Environmental Studies Laboratory	4
GEOL 2605	Historical Geology	4
GEOL 3700	Mineralogy	4
GEOL 3701	Geomorphology	3
GEOL 3704 & 3704L	Structural Geology and Structural Geology Laboratory	3
GEOL 3718	Igneous and Metamorphic Petrology	4
GEOL 3750	Geoscience Seminar (may be repeated up to four times)	1
GEOL 5802	Sedimentology and Stratigraphy	3
GEOG 5810	Geographic Information Science 1	3
<b>Capstone Experience</b>		
Select one of the following: 4		
GEOL 48XX Field Camp (4 s.h. minimum)		
STEM 4890	STEM Internship (4 s.h. maximum)	
GEOL 4830	Senior Thesis	
<b>Electives</b>		
Select a minimum 8 s.h. of Geology courses, 12 s.h. total: 12		
ENST 3700 & 3700L	Environmental Chemistry and Environmental Chemistry Lab	
GEOL 3702	Glacial Geology	
GEOL 3706	Geology of Economic Mineral Deposits	
GEOL 3709	Subsurface Investigations	
GEOL 3714	Principles of Paleontology	
GEOL 3716	Environmental Impact of Abandoned Mines	
ENST 3751 & 3751L	Water Quality Analysis and Water Quality Analysis Lab	
GEOL 3720	Field Investigations in Geology	
ENST 3780	Environmental Research	

ENST 3781	Environmental Sampling Methods
GEOL 4804	Ground Water
GEOL 4824	Tectonics
GEOL 4825	Geophysical Well Log Analysis
GEOL 4899	Special Topics
GEOL 5805	Special Problems in Geology
ENST 5810	Environmental Safety
GEOL 5810	Groundwater Resource Evaluation
GEOG 5811	Geographic Information Science 2
GEOL 5815	Geology and the Environment 2
GEOL 5817	Environmental Geochemistry
ENST 5860	Environmental Regulations

<b>Ancillary Science Courses</b>		
Select 25-26 s.h. from the following:		25-26
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	
MATH 1571 & MATH 1572 or STAT 3717	Calculus 1 and Calculus 2 or Statistical Methods	
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1	
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2	
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	
Total Prescribed Semester Hours: 113-114 s.h.		

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
ENGL 1550	Writing 1	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
GER Arts and Humanities Elective		3
GEOL 3750	Geoscience Seminar	1
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
GEOL 2605	Historical Geology	4
ENGL 1551	Writing 2	3
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
GEOG 2626	World Geography	3
GEOG 2611	Geospatial Foundations	3
<b>Semester Hours</b>		<b>17</b>
<b>Year 2</b>		
<b>Fall</b>		
GEOL 3700	Mineralogy	4
MATH 1571	Calculus 1	4
GEOG 5810	Geographic Information Science 1	3
ENST 2600 & 2600L	Foundations of Environmental Studies and Foundations of Environmental Studies Laboratory	4

GEOL 3750	Geoscience Seminar (Optional)	1
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
GEOL 3718	Igneous and Metamorphic Petrology	4
STAT 3717 or MATH 1572	Statistical Methods or Calculus 2	4
GEOL/ENST Upper Division Elective		3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>14</b>

**Year 3****Fall**

GEOL 3701	Geomorphology	3
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1	5
GER Social Science Elective		3
GEOL/ENST Upper Division Elective		3
GEOL 3750	Geoscience Seminar (Optional)	1
<b>Semester Hours</b>		<b>15</b>

**Spring**

GEOL 3704 & 3704L	Structural Geology and Structural Geology Laboratory	3
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2	4
GER Arts and Humanities		3
GEOL/ENST Upper Division Elective		3
ENST 5810	Environmental Safety	1
<b>Semester Hours</b>		<b>14</b>

**Year 4****Fall**

GEOL 3750	Geoscience Seminar (Optional)	1
GER Social Personal Awareness		3
GEOL/ENST Upper Division Elective		3
GEOL/ENST Upper Division Elective		3
Elective Course		3
<b>Semester Hours</b>		<b>13</b>

**Spring**

GEOL 5802	Sedimentology and Stratigraphy	3
GEOL/ENST Upper Division Elective		3
GEOL/ENST Upper Division Elective		3
PHIL 2631	Environmental Ethics (GER Social and Personal Awareness)	3
Elective Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>119</b>

COURSE	TITLE	S.H.
<b>Capstone Experience Options</b>		
GEOL 48XX	Geology Field Camp: Preferred (Summer Junior or Senior Year)	4-6
STEM 4890	STEM Internship (Optional (Summer Junior or Senior Year))	4
GEOL 4830	Senior Thesis (Restricted)	4

## Learning Outcomes

The learning outcomes for the Bachelor of Science in Geology are as follows:

- Communicate effectively using the language, concepts, and models of geology in written, visual, and numerical formats.

- Properly apply the scientific method to research a geologic problem and formulate conclusions.
- Demonstrate ability to apply appropriate field- and laboratory-based methods (of acquiring, quantitatively and qualitatively analyzing, and interpreting geologic data and information).
- Demonstrate understanding of plate tectonics regarding the petrologic, stratigraphic, and structural evolution of continents and oceans.

## Minor in Engineering Geology

COURSE	TITLE	S.H.
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2605	Historical Geology	4
GEOL 3704 & 3704L	Structural Geology and Structural Geology Laboratory	3
GEOL 3706	Geology of Economic Mineral Deposits	3
GEOL 3709	Subsurface Investigations	3
GEOL 4804	Ground Water	3
<b>Total Semester Hours</b>		<b>20</b>

## Minor in Environmental Geology

COURSE	TITLE	S.H.
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2605	Historical Geology	4
GEOL 2615	Geology and the Environment 1	3
Select at least 9 hours from the following:		9
GEOL 3701	Geomorphology	
GEOL 3702	Glacial Geology	
GEOL 3709	Subsurface Investigations	
GEOL 3720	Field Investigations in Geology	
GEOL 4804	Ground Water	
GEOL 5815	Geology and the Environment 2	
GEOL 5817	Environmental Geochemistry	
<b>Total Semester Hours</b>		<b>20</b>

## Minor in Environmental Studies

COURSE	TITLE	S.H.
ENST 2600 & 2600L	Foundations of Environmental Studies and Foundations of Environmental Studies Laboratory	4
Select one of the following:		3
ENST 5800	Environmental Impact Assessment	
ENST 5830	Risk Assessment	
ENST 5860	Environmental Regulations	
Select 12 s.h. of Upper-division Environmental Studies courses.		12
<b>Total Semester Hours</b>		<b>19</b>

## Minor in Geoscience

COURSE	TITLE	S.H.
GEOL 1505	Physical Geology	4
GEOL 2605	Historical Geology	4
Select a minimum of 10 semester hours upper division Geology courses.		10
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Natural Gas and Water Resources

COURSE	TITLE	S.H.
<b>Required Core Courses</b>		
GEOL 2620	Intro to Natural Gas and Water Resources	3
ENST 2600 & 2600L	Foundations of Environmental Studies and Foundations of Environmental Studies Laboratory	4
STEM 2625	Natural Gas and Water Resources Seminar	1
<b>A. Water Resources and Environmental Management</b>		
Select at least 3 s.h. from group A:		3
BIOL 4801 & 4801L	Environmental Microbiology and Environmental Microbiology Laboratory	
BIOL 5888	Environmental Biotechnology	
CCET 3724	Hydraulics and Land Development	
CCET 4824	Environmental Technology	
CEEN 3736	Fundamentals of Environmental Engineering	
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	
CHEM 4860	Regulatory Aspects of Industrial Chemistry	
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory	
ENST 3700 & 3700L	Environmental Chemistry and Environmental Chemistry Lab	
CEEN 3751 & 3751L	Water Quality Analysis and Water Quality Analysis Lab	
OR		
ENST 3751 & 3751L	Water Quality Analysis and Water Quality Analysis Lab	
ENST 3781	Environmental Sampling Methods	
ENST 5860	Environmental Regulations ( )	
or AHLT 5816	Environmental Regulations	
GEOG 3735	Water in the Earth System	
GEOL 4804	Ground Water	
GEOL 5817	Environmental Geochemistry	
<b>B. Natural Gas Production</b>		
Select at least 3 s.h. from group B:		3
ACCT 3730	Oil and Gas Accounting	
AHLT 4808	Environmental Health Concerns	
CEEN 3716 & 3716L	Fluid Mechanics and Fluid Mechanics Lab	
OR		
MECH 3720 & 3720L	Fluid Dynamics and Fluid Dynamics Laboratory	
OR		
MET 3714 & 3714L	Fluid Mechanics and Fluid Mechanics Laboratory	
CHEN 2688	Energy Assessment	
GEOG 5810	Geographic Information Science 1	
GEOL 3709	Subsurface Investigations	
GEOL 4825	Geophysical Well Log Analysis	
ISEN 3736	Methods Engineering	
ISEN 3736L	Methods Engineering Laboratory	
Natural Gas and Water Resources Applications		
STEM 4890	STEM Internship	1-4

STEM 4895	Senior Thesis (Equivalent course may be taken within CSTEM department degree programs)	3
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Total Semester Hours

18-21

## Department of Mathematics and Statistics

501 Lincoln Building  
(330) 941-3302

Students may select mathematics as their major for the following degree programs:

- Bachelor of Science (BS)
- Bachelor of Science in Education (BSEd)

In addition to satisfying general University requirements, all students majoring in mathematics must complete the following core courses:

COURSE	TITLE	S.H.
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3715	Discrete Mathematics	3
MATH 3720	Linear Algebra and Matrix Theory	3
MATH 3721	Abstract Algebra 1	4
MATH 3751	Real Analysis 1	4
STAT 3743	Probability and Statistics	4
CSIS 2610	Programming and Problem-Solving	4
Intermediate-level (2600) proficiency in a foreign language		
Select one of the following:		2
MATH 4896	Senior Undergraduate Research Project	
MATH 4897H	Thesis	
STEM 4890	STEM Internship	

In addition, students must complete 12 additional semester hours in mathematics at the 3700-level or above, with at least two courses chosen from the 4800-level. The total number of hours of mathematics is 40 semester hours.

In selecting appropriate courses, the student should consult a department advisor, since certain courses are recommended according to whether the student contemplates graduate study in mathematics or statistics, secondary school teaching, or a career in business, industry, or government. The following courses are recommended based upon the student's interest and career goals:

**Traditional Mathematics:** In addition to the core, students seeking classical training in mathematics are recommended to take MATH 4822, MATH 4880, and MATH 5852 and one additional 4800-level course in mathematics. The minor course of study may be any discipline. Suggested minors include biology, chemistry, computer science, economics, geology, physics, psychology, one engineering specialty (from chemical, civil, electrical, industrial, mechanical), or statistics. Students will study the nature of mathematics in fields such as algebra, real analysis, complex analysis, and topology. Connections to, and generalizations of, earlier formulations of mathematical concepts will constantly occur. Generally, new results in mathematics are developed and proven by those with a Ph.D. in mathematics. Students planning to pursue a Ph.D. will be well prepared for graduate school with these courses and should also study at least one of the languages French, Russian, or German.

**Applied Mathematics:** Applied mathematics courses emphasize areas of mathematics used in government and industry. Students learn mathematical models for the study of physical and computational processes. Mathematical



techniques are also used to study uncertainty, scheduling, and decision theory. Many graduates find employment in consulting firms and large corporations where computing and mathematical problem solving skills are valued. Students are also prepared to pursue a master's degree in applied mathematics.

In addition to the core, students interested in applied mathematics are recommended to take MATH 3705, 3760, two electives from MATH 4855, MATH 5825, MATH 5835, MATH 5845, MATH 5861, and MATH 6942, and complete a recognized minor in any discipline. Suggested minors include statistics, computer science, engineering, physics, geology, chemistry, biology, logistics, economics, or geoscience.

**Statistics:** Statistical techniques are utilized in many fields of research such as medicine, biology, business, and sociology. Statisticians learn proper methodology for collecting, summarizing, and interpreting data subject to sampling variability. The increase in affordable computing and the ease of statistical software have placed statistical expertise in demand. Generally, students interested in statistics pursue further study at the graduate level, but positions are available for students upon completion of a bachelor's degree.

In addition to the core, students interested in statistics are recommended fulfill their upper-level course requirements with statistics courses and complete a minor in statistics.

**Actuarial Mathematics:** Students interested in using mathematics and statistics to quantify risk and develop models to better predict and study risk should consider actuarial mathematics. Actuaries work for insurance companies, investment and consulting firms, as well as the government and seek to find ways to manage risk and avoid potential exposure to excessive risk. Actuaries assess pension plans, mortality rates, and accident rates. Students will study the mathematical and statistical foundations of actuarial models as they prepare for the examination sequence to become a licensed actuary.

In addition to the core, students interested in actuarial mathematics are recommended to take STAT 5800, STAT 4844, STAT 4888, and STAT 5802 and complete a minor in actuarial science.

**Accelerated 4+1 Program:** Undergraduate students can apply for admission into the accelerated program for the MS in Mathematics after completing 78 undergraduate semester hours with a GPA of 3.3 or higher. After being admitted to the accelerated MS program, students can take a maximum of nine semester hours of graduate coursework that can count toward both a bachelor's and master's degree from the Department of Mathematics and Statistics. The courses chosen to count for both undergraduate and graduate coursework must be approved by the Graduate Executive Committee within the Department upon admission into the program. An additional six hours of graduate coursework can be completed as an undergraduate and used exclusively for graduate credit. This allows the student to graduate with a master's degree with one year of additional full-time study beyond the bachelor's degree.

#### Chair

**Angela Spalsbury**, Ph.D., Professor, Chair

#### Professor

**Guang-Hwa (Andy) Chang**, Ph.D., Professor

**Neil Flowers**, Ph.D., Assistant Professor

**Richard G. Goldthwait**, Ph.D., Assistant Professor

**Jozsi Z. Jalics**, Ph.D., Associate Professor

**G. Jay Kerns**, Ph.D., Professor

**Lucy Xiaojing Kerns**, Ph.D., Assistant Professor

**Thomas L. Madsen**, Ph.D., Assistant Professor

**Nguyet Thi Nguyen**, Ph.D., Assistant Professor

**Anita C. O'Mellan**, Ph.D., Professor

**David H. Pollack**, Ph.D., Associate Professor

**Alicia Prieto Langarica**, Ph.D., Associate Professor

**Stephen Rodabaugh**, Ph.D., Professor

**Thomas Smotzer**, Ph.D., Professor

**Jamal K. Tartir**, Ph.D., Professor

**Padraic ("Paddy") W. Taylor**, Ph.D., Associate Professor

**Thomas P. Wakefield**, Ph.D., Professor

**Eric J. Wingle**, Ph.D., Professor

**George Yates**, Ph.D., Professor

#### Instructor

**Lori A. Carlson**, M.S., Instructor

## Majors

- BS in Mathematics (p. 550)

#### Minors

- Mathematics Minor (p. 551)
- Statistics Minor (p. 551)
- Biomathematics Minor (p. 551)
- Actuarial Science Minor (p. 551)

## Mathematics

### MATH 1501 Elementary Algebraic Models 5 s.h.

Arithmetic of integers and of rational numbers; linear equations and inequalities in one variable; polynomials, factoring, algebraic fractions, radicals and quadratic equations; linear systems in two variables; graphs. Does not count toward a degree.

**Prereq.:** Level 10 on Math Placement Test.

### MATH 1505 Intermediate Algebra with Applications 5 s.h.

This course is intended to prepare STEM students for their college-level mathematics requirement. Topics include linear and nonlinear equations and inequalities; problem solving; relations of function types that include linear, polynomial, radical, rational, exponential, and logarithmic; applications. Math Placement Level 10 or higher. Does not count toward a degree.

### MATH 1507 Intermediate Algebra 3 s.h.

Topics include functions of the following: linear, polynomial, rational, exponential, and logarithmic. Emphasis on function relations and graphing by algebraic techniques and technology. Solving linear, nonlinear equations and inequalities. Does not count toward a degree.

**Prereq.:** MATH 1501 or Level 20 on Math Placement Test.

### MATH 1510 College Algebra 4 s.h.

This course is primarily intended to prepare STEM students (along with MATH 1511) for MATH 1570 or 1571 and business students for MATH 1552. Topics include real numbers, equations and inequalities, linear, quadratic, polynomial, exponential, and logarithmic functions, graphing techniques, systems of equations, and applications. The course fulfills the general education requirements for mathematics.

**Prereq.:** MATH 1505 or MATH 1507 with a "C" or better or Math Placement Level 35 or higher.

**Gen Ed:** Mathematics.

**MATH 1510C Corequisite Support for College Algebra 1-3 s.h.**

This course is intended to provide corequisite support for students requiring remediation in mathematics while they are concurrently enrolled in MATH 1510 (College Algebra). Emphasis will be placed on prerequisite skills needed for college algebra as well as just in time review through the use of appropriate technology. Does not count toward a degree.

**Prereq.:** Concurrent enrollment in MATH 1510.

**MATH 1511 Trigonometry 3 s.h.**

This course, along with MATH 1510 is primarily intended to prepare STEM students for MATH 1570 or MATH 1571. Topics include algebraic structure and graphs of trigonometric functions and inverse trigonometric functions, angle measurements, similar triangles, trigonometric identities, vectors, complex numbers, polar coordinates and solving trigonometric equations with applications.

**Prereq.:** MATH 1505 or MATH 1507 or Math Placement Level 35.

**Gen Ed:** Mathematics.

**MATH 1511C Corequisite Support for Trigonometry 1-3 s.h.**

This course is intended to provide corequisite support for students requiring remediation in mathematics while they are concurrently enrolled in MATH 1511 (Trigonometry). Emphasis will be placed on prerequisite skills needed for trigonometry as well as just in time review through the use of appropriate technology. Does not count toward a degree.

**Prereq.:** Concurrent enrollment in MATH 1511.

**MATH 1513 Algebra and Transcendental Function 5 s.h.**

Function concepts including trigonometric, exponential, and logarithmic functions. Application problems and graphing. Supplemental topics.

**Prereq.:** Math Placement Level 45 or higher.

**Gen Ed:** Mathematics.

**MATH 1552 Applied Mathematics for Management 4 s.h.**

Apply functions, linear systems, linear programming to business including use of technology; mathematics of finance and an introduction to limits, derivatives and integrals with business applications. No credit for students who have completed MATH 1570 or MATH 1571.

**Prereq.:** MATH 1510 or at least Level 45 on the Mathematics Placement Test.

**Gen Ed:** Mathematics.

**MATH 1552C Corequisite Support for Applied Math for Management 1-3 s.h.**

This course is intended to provide corequisite support for students requiring remediation in mathematics while they are concurrently enrolled in MATH 1552 (Applied Math for Management). Emphasis will be placed on prerequisite skills needed for business calculus as well as just in time review through the use of appropriate technology. Does not count toward a degree.

**Prereq.:** Concurrent enrollment in MATH 1552.

**MATH 1564 Foundations of Middle School Mathematics 1 4 s.h.**

Conceptual foundations of topics from number theory, operations, functions, algebra, geometry, measurement, probability, and data analysis. Emphasis on multiple approaches and representations, problem solving, and communication of mathematical reasoning. Includes inquiry-based laboratory experiences with manipulatives and computing technology.

**Prereq.:** At least Level 40 on the Mathematics Placement Test or concurrent registration in MATH 1507 (for both).

**MATH 1570 Applied Calculus 1 4 s.h.**

The elements of differential and integral calculus, with emphasis on applications. Analytical geometry, differentiation and integration techniques and series representations. Introduction to differential equations, transform calculus, and Fourier analysis. This is a basic methods course particularly adapted for those who require applied topics in mathematics. Not applicable toward the Mathematics major. Credit will not be given for both MATH 1549 and MATH 1570.

**Prereq.:** MATH 1513, or MATH 1510 and MATH 1511, or at least Level 50 on the Mathematics Placement Test.

**Gen Ed:** Mathematics.

**MATH 1571 Calculus 1 4 s.h.**

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

**Prereq.:** MATH 1513, minimum grade of "C", or MATH 1510 and MATH 1511, minimum grade of "C" in both courses, or at least Level 70 on the Mathematics Placement Test.

**Gen Ed:** Mathematics.

**MATH 1571C Corequisite Support for Calculus 1 1-3 s.h.**

This course is intended to provide corequisite support for students requiring remediation in mathematics while they are concurrently enrolled in MATH 1571 (Calculus I). Emphasis will be placed on prerequisite skills needed for calculus as well as just in time review through the use of appropriate technology. Does not count toward a degree.

**Prereq.:** Concurrent enrollment in MATH 1571.

**MATH 1571H Honors Calculus 1 4 s.h.**

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

**Prereq.:** MATH 1513, minimum grade of "C", or MATH 1510 and MATH 1511, minimum grade of "C" in both courses, or at least Level 70 on the Mathematics Placement Test.

**Gen Ed:** Mathematics.

**MATH 1572 Calculus 2 4 s.h.**

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

**Prereq.:** MATH 1571.

**Gen Ed:** Mathematics.

**MATH 1572H Honors Calculus 2 4 s.h.**

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

**Prereq.:** MATH 1571.

**Gen Ed:** Mathematics.

**MATH 1580H Honors Biomathematics 1 2 s.h.**

Counting techniques, probability, matrices and linear systems. Emphasis on the role of mathematical models in explaining and predicting phenomena in life sciences.

**Prereq.:** Admission to NEOMED-YSU program.

**MATH 1581H Honors Biomathematics 2 4 s.h.**

A study of functions, differential and integral calculus. Emphasis on the role of mathematical models in explaining and predicting phenomena in life sciences. Credit will not be given for both MATH 1581H and MATH 1571.

**Prereq.:** Admission to NEOMED-YSU program.

**Gen Ed:** Mathematics.

**MATH 1585H Accelerated Honors Calculus 1 5 s.h.**

A sequence of honors courses in analytical geometry and calculus which cover essentially the same material as MATH 1571, 1572, 2673, in two semesters instead of three. A detailed study of limits, derivatives, and integrals of functions of one and several variables and their applications. This sequence will be offered at most once during each academic year.

**Prereq.:** ACT math subscore of 32, AP Calculus score of 4 or higher, or at least one unit of high school calculus with a score of 28 or higher on placement exam or instructor permission.

**Gen Ed:** Mathematics.

**MATH 1586H Honors Calculus Laboratory 1 1 s.h.**

Introduction to mathematical modeling of topics covered in calculus. Emphasizes the use of technology such as computer algebra systems, technical document processing, and graphics software for solving problems and reporting solutions.

**Prereq.:** MATH 1571 or concurrent with 1585H.

**MATH 2623 Quantitative Reasoning 3 s.h.**

Mathematics models emphasizing basic ideas in mathematics and statistics, stressing concept formation rather than manipulative skills. Credit will not be given for both MATH 2623 and STAT 2625.

**Prereq.:** MATH 1501 or Level 20 on the Mathematics Placement Test.

**Gen Ed:** Mathematics.

**MATH 2623C Corequisite Support for Quantitative Reasoning 1-3 s.h.**

This course is intended to provide corequisite support for students requiring remediation in mathematics while they are concurrently enrolled in MATH 2623 (Quantitative Reasoning). Emphasis will be placed on prerequisite skills needed for MATH 2623 as well as just in time review through the use of appropriate technology. Does not count toward a degree.

**Prereq.:** Concurrent enrollment in MATH 2623.

**MATH 2623H Honors Quantitative Reasoning 3 s.h.**

Mathematics models emphasizing basic ideas in mathematics and statistics, stressing concept formation rather than manipulative skills. Credit will not be given for both MATH 2623 and STAT 2625.

**Prereq.:** MATH 1501 or Level 20 on the Mathematics Placement Test.

**Gen Ed:** Mathematics.

**MATH 2651 Mathematics for Early Childhood Teachers 1 3 s.h.**

A conceptual development of mathematics topics underlying today's Pre-K-grade 3 curriculum. Emphasis on multiple approaches, problem solving, and communication of mathematics. Incorporates classroom activities, manipulatives, technology, and activities developmentally appropriate for young children.

**Prereq.:** MATH 1501 or Level 20 on the Mathematics Placement Test.

**MATH 2652 Mathematics for Early Childhood Teachers 2 3 s.h.**

A conceptual development of mathematics topics underlying today's Pre-K-grade 3 curriculum. Emphasis on multiple approaches, problem solving, and communication of mathematics. Incorporates classroom activities, manipulatives, technology, and activities developmentally appropriate for young children.

**Prereq.:** MATH 2651.

**Gen Ed:** Mathematics.

**MATH 2665 Foundations of Middle School Mathematics 2 4 s.h.**

Conceptual foundations of topics from number theory, operations, functions, algebra, geometry, measurement, probability, and data analysis. Emphasis on multiple approaches and representations, problem solving, and communication of mathematical reasoning. Includes inquiry-based laboratory experiences with manipulatives and computing technology.

**Prereq.:** At least Level 40 on the Mathematics Placement Test or concurrent registration in MATH 1507 (for both).

**Gen Ed:** Mathematics.

**MATH 2670 Applied Calculus 2 5 s.h.**

The elements of differential and integral calculus, with emphasis on applications. Analytical geometry, differentiation and integration techniques and series representations. Introduction to differential equations, transform calculus, and Fourier analysis. This is a basic methods course particularly adapted for those who require applied topics in mathematics. Not applicable toward the Mathematics major. Credit will not be given for both MATH 1549 and MATH 1570.

**Prereq.:** MATH 1570.

**Gen Ed:** Mathematics.

**MATH 2673 Calculus 3 4 s.h.**

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

**Prereq.:** MATH 1572.

**MATH 2673H Honors Calculus 3 4 s.h.**

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

**Prereq.:** MATH 1572.

**MATH 2686H Accelerated Honors Calculus 2 5 s.h.**

A sequence of honors courses in analytical geometry and calculus which cover essentially the same material as MATH 1571, 1572, 2673, in two semesters instead of three. A detailed study of limits, derivatives, and integrals of functions of one and several variables and their applications. This sequence will be offered at most once during each academic year.

**Prereq.:** MATH 1585H.

**Gen Ed:** Mathematics.

**MATH 2687H Honors Calculus Laboratory 2 1 s.h.**

Introduction to mathematical modeling of topics covered in calculus. Emphasizes the use of technology such as computer algebra systems, technical document processing, and graphics software for solving problems and reporting solutions.

**Prereq.:** MATH 1572 or concurrent with MATH 1572H or 1586H.

**MATH 3701 Biomathematics Seminar 1 s.h.**

Introduction to interdisciplinary research in biology and mathematics. Topics include current research by faculty and students, cross disciplinary communication, report writing, technical presentations, literature reading, laboratory techniques and safety. May be repeated once. Listed also as BIOL 3701.

**Prereq.:** MATH 1571 or BIOL 2601 or BIOL 2602.

**MATH 3702 Problem Solving Seminar for Secondary Mathematics 3 s.h.**

Approaches to and practice with problem solving with examples from a broad spectrum of mathematics. Emphases include problems at the level of the Praxis II examination for mathematics and problems suitable for high school contests such as the American Mathematics Competition 10 and 12.

**Prereq.:** MATH 1572 or consent of instructor.

**MATH 3705 Differential Equations 3 s.h.**

Methods and theory of solving differential equations with applications. Existence, uniqueness. First order equations. Higher order linear equations. Introduction to partial differential equations and boundary value problems, including Laplace's equation.

**Prereq.:** MATH 2673.

**MATH 3705H Honors Differential Equations 3 s.h.**

Methods and theory of solving differential equations with applications. Existence, uniqueness. First order equations. Higher order linear equations. Introduction to partial differential equations and boundary value problems, including Laplace's equation.

**Prereq.:** MATH 2673.

**MATH 3715 Discrete Mathematics 3 s.h.**

A course in discrete mathematical structures to prepare students for advanced courses. Topics include set theory, functions and relations, logic and quantifiers, truth tables and Boolean expressions, induction and other techniques of proof, and graphs. Credit will not be given for both CSCI 3710 and MATH 3715.

**Prereq.:** MATH 1572.

**MATH 3720 Linear Algebra and Matrix Theory 3 s.h.**

Matrices; matrix operations; linear transformations; applications.

**Prereq.:** MATH 1572.

**MATH 3721 Abstract Algebra 1 4 s.h.**

Introduction to abstract algebra investigating fundamental concepts in group and ring theory. Topics include groups, subgroups, cyclic groups, permutation groups, cosets, direct products, homomorphisms, factor groups, rings, integral domains and polynomial rings.

**Prereq.:** MATH 3715 and MATH 3720.

**MATH 3745 Topics in Mathematical Modeling 3 s.h.**

This course exposes students to methods of mathematical modeling through applications. Tools used to develop, refine, test, and present mathematical models will be discussed. Topics covered and projects undertaken may vary with each course offering and are designed to expose students to the types of problems modeled by applied mathematicians working in business, government, industry, or research. Course may be repeated depending on projects or topics presented.

**Prereq.:** MATH 2673 or permission of the instructor.

**MATH 3750 History of Mathematics 3 s.h.**

A survey of the historical development of mathematics.

**Prereq.:** MATH 3715.

**MATH 3751 Real Analysis 1 4 s.h.**

Introduction to the properties of the real number system and metrics and metric properties, with critical analysis of limits, continuity, differentiability, integration, and other fundamental concepts underlying the calculus.

**Prereq.:** MATH 2673 and MATH 3715.

**MATH 3760 Numerical Analysis 1 3 s.h.**

The theory and techniques of numerical computation. The solution of a single equation, interpolation methods, numerical differentiation and integration, direct methods for solving linear systems.

**Prereq.:** MATH 3720 and CSIS 2610.

**MATH 3767 Algebra/Geometry for Middle School Teachers 1 4 s.h.**

An integrated, conceptual, and function-centered approach to the foundations of algebra, geometry, and trigonometry for preservice middle childhood mathematics specialists. Emphasis on multiple approaches and representations, problem solving, and communication of mathematical reasoning. Includes inquiry-based laboratory experiences. Not applicable to the mathematics major.

**Prereq.:** MATH 1564 and either 40 on the Mathematics Placement test or MATH 1507.

**MATH 3768 Algebra/Geometry for Middle School Teachers 2 4 s.h.**

An integrated, conceptual, and function-centered approach to the foundations of algebra, geometry, and trigonometry for preservice middle childhood mathematics specialists. Emphasis on multiple approaches and representations, problem solving, and communication of mathematical reasoning. Includes inquiry-based laboratory experiences. Not applicable to the mathematics major.

**Prereq.:** MATH 2665 and either 40 on the Mathematics Placement test or MATH 1507.

**MATH 3785 Numerical Methods 3 s.h.**

Matrices, matrix operations, and the application of numerical methods. Not applicable to the Mathematics major.

**Prereq.:** MATH 2670 and ENTC 1505, or equivalent.

**MATH 3795 Topics in Mathematics 2-3 s.h.**

The study of a mathematical topic or the development of a special area of mathematics. May be repeated once.

**Prereq.:** MATH 1549 or MATH 1570 or MATH 1571 or MATH 2623 or MATH 2651.

**MATH 4822 Abstract Algebra 2 3 s.h.**

A continuation of MATH 3721 with special emphasis on fields. Additional topics in pure or applied algebra.

**Prereq.:** MATH 3721 or equivalent.

**MATH 4823 Abstract Algebra 3 3 s.h.**

This course introduces advanced topics in field theory. Topics may include principal ideal domains, irreducibility, quotient rings, algebraic extensions, finite fields, splitting fields, and the Galois group.

**Prereq.:** MATH 4822.

**MATH 4830 Foundations of Geometry 3 s.h.**

The development of Euclidean and non-Euclidean geometries from postulate systems.

**Prereq.:** MATH 3715.

**MATH 4832 Euclidean Transformations 3 s.h.**

General properties of functions and transformations; isometries and transformations of the Euclidean plane; the complex plane, its geometry and subfields; transformational, analytical, and vector approaches to Euclidean geometry; connections to other branches of mathematics and applications.

**Prereq.:** MATH 3720 and MATH 4830.

**MATH 4843 Theory of Probability 3 s.h.**

The mathematical foundation of probability theory including the study of discrete and continuous distributions. Other topics selected from limit theorems, generating functions, applications. Credit will not be given for MATH 4843 and STAT 4843.

**Prereq.:** STAT 3743 and MATH 2673.

**MATH 4855 Ordinary Differential Equations 3 s.h.**

A second course in differential equations with emphasis on nonlinear problems and qualitative methods or on boundary value problems. Topics are chosen from: proofs of fundamental theorems, phase plane analysis, limit cycles and the Poincare-Bendixon theorem, biological models, stability via Liapunov functions, asymptotic methods, and boundary value problems.

**Prereq.:** MATH 3705 and MATH 3720.

**MATH 4857 Partial Differential Equations 3 s.h.**

Introduction to partial differential equations (PDE) including solution techniques and applications. Classifications of the basic types of PDE's (hyperbolic, parabolic and elliptic) and dependence on boundary and initial conditions. Topics include Fourier series, integral transforms (Fourier, Laplace), and applications in vibrations, electricity, heat transfer, fluids or other selected topics.

**Prereq.:** MATH 3705 and MATH 3720.

**MATH 4869 Functions, Calculus, and Applications for Middle School Teachers 3 s.h.**

Polynomial and exponential functions, limits, derivatives, integrals, and applications. Interpretation of slope and area in graphs of functions from applied settings. Applications of limits to the derivations of geometric formulas. Relations between tables, graphs, and the symbolic representation of functions.

**Prereq.:** MATH 3767 or consent of instructor.

**MATH 4870 Mathematics Seminar for Middle School Teachers 2 s.h.**

Problem solving from a broad spectrum of mathematics topics (Number Sense and Operations; Algebra, Functions, and Calculus; Measurement and Geometry; Statistics, Probability, and Discrete Mathematics) designed to prepare future middle school mathematics teachers to address Common Core Standards. May be repeated 2 times.

**Prereq.:** MATH 3767, MATH 3768, MATH 4869, and either STAT 2601 or MATH 2625.

**MATH 4875 Complex Variables 3 s.h.**

Complex numbers and their geometric representation, analytic functions of a complex variable, contour integration, Taylor and Laurent series, residues and poles, conformal mapping.

**Prereq.:** MATH 3751 or equivalent.

**MATH 4880 Introduction to Topology 3 s.h.**

An introduction to the basic concepts of general topology: compactness, connectedness, and continuity in topological spaces.

**Prereq.:** MATH 3721 and MATH 3751.

**MATH 4882 Biomathematics Research 1-2 s.h.**

Interdisciplinary and individualized study of a topic in biology and mathematics. Student project mentored jointly by faculty in biology and mathematics. May be repeated once. Grading is Traditional/PR. Listed also as BIOL 4882.

**Prereq.:** MATH 3701, BIOL 3701, senior status and permission of the department chairperson.

**MATH 4884 Mathematical Logic 3 s.h.**

An introduction to the study of theories in formalized languages and to the theory of models.

**Prereq.:** MATH 3721 or PHIL 3719.

**MATH 4896 Senior Undergraduate Research Project 2 s.h.**

Individualized study of a topic in mathematics culminating in a written report and an oral presentation at a national or regional meeting or a local seminar. May be repeated once.

**Prereq.:** 24 s.h. of mathematics applicable to the mathematics major including either MATH 3721 or MATH 3751 and permission of the department chairperson.

**Gen Ed:** Capstone.

**MATH 4897H Thesis 2 s.h.**

Individualized study of a topic in mathematics culminating in a written report and an oral presentation at a national or regional meeting or a local seminar.

**Prereq.:** 24 s.h. of mathematics applicable to the mathematics major including both MATH 3721 and MATH 3751 and permission of the department chairperson.

**MATH 5821 Topics in Abstract Algebra 4 s.h.**

A course in abstract algebra aimed at developing a broad understanding of the subject. Credit will not be given for both MATH 3721 and MATH 5821.

**Prereq.:** MATH 3715 and MATH 3720.

**MATH 5825 Advanced Linear Algebra 3 s.h.**

A study of abstract vector spaces, linear transformations, duality, canonical forms, the spectral theorem, and inner product spaces.

**Prereq.:** MATH 3721.

**MATH 5828 Number Theory 3 s.h.**

A study of congruences, Diophantine equations, quadratic residues, special number theory functions, and selected applications.

**Prereq.:** MATH 3721.

**MATH 5835 Introduction to Combinatorics and Graph Theory 3 s.h.**

The pigeonhole principle; permutations, combinations, the binomial theorem; the inclusion-exclusion principle; recurrence relations; graphs and digraphs, paths and cycles, trees, bipartite graphs and matchings.

**Prereq.:** MATH 3715 and MATH 3720.

**MATH 5845 Operations Research 3 s.h.**

An introduction to operations research with emphasis on mathematical methods. Topics may include: linear programming, sensitivity analysis, duality theory, transportation problems, assignment problems, transshipment problems, and network problems.

**Prereq.:** MATH 3715 and MATH 3720.

**MATH 5851 Topics in Analysis 4 s.h.**

A course in analysis aimed at developing a broad understanding of the subject. Credit will not be given for both MATH 3751 and MATH 5851.

**Prereq.:** MATH 2673, MATH 3720, and MATH 3715.

**MATH 5852 Real Analysis 2 3 s.h.**

Uniform convergence of sequences of functions and some consequences; functions on  $n$ -space: derivatives in vector spaces, mean value theorem, Taylor's formula, inverse mapping theorem, implicit mapping theorem.

**Prereq.:** MATH 3720 and MATH 3751 or equivalent.

**MATH 5860 Topics in Numerical Analysis 3 s.h.**

A course in numerical analysis aimed at developing a broad understanding of the subject. Credit will not be given for both MATH 3760 and MATH 5860.

**Prereq.:** MATH 3720 and CSIS 2610.

**MATH 5861 Numerical Analysis 2 3 s.h.**

Numerical methods of initial-value problems, eigenvalue problems, iterative methods for linear and nonlinear systems of equations, and methods involving least squares, orthogonal polynomials, and fast Fourier transforms.

**Prereq.:** MATH 2673 and MATH 3760 or equivalent.

**MATH 5875 Complex Variables 3 s.h.**

Complex numbers and their geometric representation, analytic functions of a complex variable, contour integration, Taylor and Laurent series, residues and poles, conformal mapping.

**Prereq.:** MATH 3751 or equivalent.

**MATH 5895 Selected Topics in Mathematics 2-3 s.h.**

The study of a standard mathematical topic in depth or the development of a special area of mathematics. May be repeated twice.

**Prereq.:** 24 s.h. of mathematics applicable to the mathematics major including either MATH 3721 or MATH 3751.

**MATH 5895W Selected Topics in Mathematics Topology 2 2-3 s.h.**

The study of a standard mathematical topic in depth or the development of a special area of mathematics. May be repeated twice.

**Prereq.:** 24 s.h. of mathematics applicable to the mathematics major including either MATH 3721 or MATH 3751.

## Statistics

**STAT 2601 Introductory Statistics 3 s.h.**

Designed for students from different disciplines who desire an introduction to statistical reasoning. Topics include collecting and summarizing data, concepts of randomness and sampling, statistical inference and reasoning, correlation and regression.

**Prereq.:** MATH 1507 or level 35 on the Math Placement Test.

**Gen Ed:** Mathematics.

**STAT 2601C Corequisite Support for Introductory Statistics 1-3 s.h.**

This course is intended to provide corequisite support for students requiring remediation in mathematics while they are concurrently enrolled in STAT 2601 (Introductory Statistics). Emphasis will be placed on prerequisite skills needed for statistics as well as just in time review through the use of appropriate technology. Does not count toward a degree.

**Prereq.:** Concurrent enrollment in STAT 2601.

**STAT 2625 Stat Lit and Crit Reasoning 4 s.h.**

An introduction to statistics and its applications. Topics include descriptive statistics, experimental design, probability sampling distribution, statistical inference, correlation and regression. Emphasis on applications, critical reasoning, and data analysis using statistical software. Credit will not be given for both MATH 2623 and STAT 2625.

**Prereq.:** MATH 1501 or at least Level 20 on the Mathematics Placement Test.

**STAT 2625C Corequisite Support for Statistical Literacy and Crit Reasoning 1-3 s.h.**

This course is intended to provide corequisite support for students requiring remediation in mathematics while they are concurrently enrolled in STAT 2625 (Statistical Literacy and Critical Reasoning). Emphasis will be placed on prerequisite skills needed for statistics as well as just in time review through the use of appropriate technology. Does not count toward a degree. 1 - 3 s.h.

**Prereq.:** Concurrent enrollment in STAT 2625.

**STAT 3717 Statistical Methods 4 s.h.**

Probability and statistics designed for students majoring in the natural sciences. Topics include descriptive statistics, probability, estimation, testing hypotheses, analysis of variance, regression and nonparametric statistics. Use of personal computers with computer software will be required. Credit will not be given for both STAT 3717 and STAT 3743.

**Prereq.:** MATH 1549 or MATH 1570 or MATH 1571 or MATH 1585H or equivalent.

**STAT 3743 Probability and Statistics 4 s.h.**

A calculus-based probability and statistics course. Topics include descriptive statistics, probability models and related concepts and applications, statistical estimation, and hypothesis testing. Credit will not be given for both STAT 3717 and STAT 3743.

**Prereq.:** MATH 1572 or MATH 1585H.

**STAT 3781H Honors Biostatistics 3 s.h.**

Descriptive statistics, testing hypotheses, analysis of count data, correlation, regression, nonparametric statistics, and analysis of variance with applications relating to biological and health sciences.

**Prereq.:** MATH 1580H and MATH 1581H, or equivalent.

**STAT 4804 Actuarial Models 1 3 s.h.**

The statistical foundation of actuarial contingency models including the study of survival and severity distributions. Other topics selected from life insurance and annuities, benefit premiums, reserves, and applications.

**Prereq.:** STAT 3743 or consent of department chairperson.

**STAT 4805 Actuarial Models 2 3 s.h.**

The statistical foundation of actuarial contingency models including the analysis of benefit reserves. Other topics selected from multiple life functions and decrement models, insurance models, and applications.

**Prereq.:** STAT 3743 or consent of department chairperson.

**STAT 4812 Statistical Analysis System for Data and Analytics 3 s.h.**

An introduction to SAS programming for data and analytics. Topics include using SAS for data processing, manipulation, visualization, reporting, and statistical analysis. The objective is for students to develop statistical computing skills for problem solving and decision making.

**Prereq.:** STAT 3717 or STAT 3743 or equivalent.

**STAT 4817 Applied Statistics 3 s.h.**

Application of regression, survey sampling, analysis of variance, design and analysis of experiments, and related topics.

**Prereq.:** STAT 3717 or STAT 3743 or equivalent.

**STAT 4843 Theory of Probability 3 s.h.**

The mathematical foundation of probability theory including the study of discrete and continuous distributions. Other topics selected from limit theorems, generating functions, stochastic processes, and applications. Listed also as MATH 4843. Credit for STAT 4843 will not be given to students with MATH 4843.

**Prereq.:** STAT 3743 and MATH 2673 or consent of department chairperson.

**STAT 4844 Theory of Statistics 3 s.h.**

The mathematical theory of statistical inferences including likelihood principle, sufficient statistics, theory of statistical estimation, hypothesis testing and related topics.

**Prereq.:** MATH 4843.

**STAT 4845 Stochastic Process Models 3 s.h.**

Introduction to the mathematical foundations of the theory and application of stochastic processes. Topics include Markov processes, Poisson processes, queueing theory, and simulation. Other topics selected from limit theorems, Brownian Motion, and stationary processes.

**Prereq.:** STAT 4843, MATH 4843.

**STAT 4848 Applied Regression Time Series 3 s.h.**

Statistical methods for regression and time series analysis. Topics include applied linear regression with model fitting and diagnostics, data analysis, and forecasting with time series models.

**Prereq.:** STAT 3717 or STAT 3743.

**STAT 4849 Design of Experiments 3 s.h.**

The objective of this course is to learn how to plan, design and conduct experiments efficiently, and apply statistical techniques on resulting data to obtain conclusions. Topics include introduction of experiments, complete randomized designs, blocking designs, factorial designs, nested designs, and random effects models.

**Prereq.:** STAT 4817 or STAT 6940 or equivalent.

**STAT 4888 Actuarial Models in Financial Economics 3 s.h.**

An introduction to actuarial models in financial economics. Topics include the Black-Scholes framework for pricing derivatives, the binomial pricing model, and interest rate models.

**Prereq.:** STAT 4843.

**STAT 4896 Statistical Project 2 s.h.**

Individualized study of a topic in statistics culminating in a written report and an oral presentation. May be repeated once.

**Prereq.:** STAT 4817 and permission of chairperson.

**Gen Ed:** Capstone.

**STAT 5800 Mathematical Foundations of Actuarial Science 3 s.h.**

A survey of probability theory and an introduction to risk management. Emphasis of the course will be on problem solving with applications in actuarial science.

**Prereq.:** MATH 4843, STAT 4843 or consent of instructor.

**STAT 5802 Theory of Interest 3 s.h.**

Mathematical theory and techniques in analysis of interest. Topics include measurement of interest, force of interest, annuities, amortization, pricing of investment products, and applications to actuarial sciences.

**Prereq.:** MATH 1572 and any 3700 level MATH, STAT, ECON, or FIN course.

**STAT 5806 Seminar in Actuarial Science 2-3 s.h.**

Approaches to and practice with problem solving in actuarial science.

Topics may include financial mathematics, financial economics, or actuarial modeling. May be repeated once. Not applicable to the mathematics major.

**Prereq.:** MATH 4843, STAT 4843 or consent of the instructor.

**STAT 5812 Statistical Analysis System Data and Analytics 3 s.h.**

An introduction to SAS programming for data and analytics. Topics include using SAS for data processing, manipulation, visualization, reporting, and statistical analysis. The objective is for students to develop statistical computing skills for problem solving and decision making.

**Prereq.:** STAT 3717 or STAT 3743 or equivalent.

**STAT 5814 Statistical Data Mining 3 s.h.**

A systematic introduction to data mining with emphasis on various data mining problems and their solutions. Topics include data mining processes and issues, exploratory data analysis, supervised and unsupervised learning, classification, and prediction methods.

**Prereq.:** STAT 3717 or STAT 3743, or consent of department chairperson.

**STAT 5819 Bayesian Statistics 3 s.h.**

An introduction to the Bayesian approach to statistical inference for data analysis in a variety of applications. Data analysis using statistical software will be emphasized. Topics include: comparison of Bayesian and frequentist methods, Bayesian model specification, prior specification, basics of decision theory, Markov chain Monte Carlo, Bayes factor, empirical Bayes, Bayesian linear regression and generalized linear models, hierarchical models.

**Prereq.:** STAT 3717 or STAT 3743 or STAT 4817 or STAT 6940 or equivalent.

**STAT 5840 Statistical Computing 3 s.h.**

Computational methods used in statistics. Topics include generation and testing of random numbers, computer intensive methods, and simulation studies.

**Prereq.:** STAT 3717 or STAT 3743.

**STAT 5846 Categorical Data Analysis 3 s.h.**

Discrete distributions, contingency table analysis, odds ratios, relative risk, logistic regression, hierarchical models.

**Prereq.:** STAT 4817 or STAT 4844.

**STAT 5847 Nonparametric Statistics 3 s.h.**

Nonparametric statistical inference including tests of hypotheses for one sample, two or more related independent samples, dependence, goodness-of-fit, trend, and related topics.

**Prereq.:** STAT 3717 or STAT 3743 or equivalent.

**STAT 5849 Multivariate Statistical Analysis 3 s.h.**

The statistical analysis of multivariate observations. Topics include multivariate probability distribution theory, regression, analysis of variance, and techniques in data analysis.

**Prereq.:** MATH 3720 and STAT 4844 or equivalent.

**STAT 5857 Statistical Consulting 3 s.h.**

The objective of this course is to cultivate the skills necessary to competently engage in statistical consulting. Topics include problem solving, study design, power and sample size, data management, selection and application of statistical methods, ethical practice, and effective visual and literal communication of results.

**Prereq.:** STAT 4817 or equivalent.

**STAT 5895 Special Topics in Statistics 2-3 s.h.**

The study of a standard statistical topic in depth or the development of a special area of statistics. May be repeated twice.

**Prereq.:** STAT 3717 or STAT 3743.

## Bachelor of Science in Mathematics

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies 9		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities 6		
Natural Science 7		
Social Science 6		
Social and Personal Awareness 6		
First-Year Experience Course 3		
<b>Major Requirements</b>		
Core Courses		
Foreign Language 1550 4		
Foreign Language 2600 4		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3715	Discrete Mathematics	3
MATH 3720	Linear Algebra and Matrix Theory	3
MATH 3721	Abstract Algebra 1	4
MATH 3751	Real Analysis 1	4
STAT 3743	Probability and Statistics	4
CSIS 2610	Programming and Problem-Solving	4
Select one of the following: 2		
MATH 4896	Senior Undergraduate Research Project	
MATH 4897H	Thesis	
STEM 4890	STEM Internship	
Select two 3700-level MATH courses. 6		
Select two 4800-level MATH courses. 6		
Minor Courses: 18		
Select any discipline.		
Select three upper division electives 9		
<b>Total Semester Hours</b>		<b>120</b>

Suggested minors include biology, chemistry, computer science, economics, geology, physics, psychology, one engineering specialty (from chemical, civil, electrical, industrial, mechanical), or statistics. The total number of required semester hours of credit in mathematics (excluding statistics courses) for this track is 40.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MATH 1571	Calculus 1	4
ENGL 1550	Writing 1	3
GER domain (AH) 3		
GER domain (SS) 3		
Foreign Language 1550 4		
<b>Semester Hours</b>		<b>17</b>

**Spring**

MATH 1572	Calculus 2 (Prerequisite)	4
CSIS 2610	Programming and Problem-Solving	4
ENGL 1551	Writing 2	3
Foreign Language 2600		4
<b>Semester Hours</b>		<b>15</b>

**Year 2****Fall**

MATH 2673	Calculus 3 (Prerequisite)	4
MATH 3715	Discrete Mathematics (Prerequisite)	3
Minor Course		3
GER domain (NS with lab)		4
GER domain (AH)		3
<b>Semester Hours</b>		<b>17</b>

**Spring**

MATH 3720	Linear Algebra and Matrix Theory (Prerequisite)	3
STAT 3743	Probability and Statistics (Prerequisite)	4
Minor Course		3
CMST 1545	Communication Foundations	3
GER domain (SS)		3
<b>Semester Hours</b>		<b>16</b>

**Year 3****Fall**

MATH 3721	Abstract Algebra 1 (Prerequisite)	4
Minor Course		3
GER domain (SP)		3
GER domain (NS)		3
<b>Semester Hours</b>		<b>13</b>

**Spring**

MATH 3751	Real Analysis 1 (Prerequisite)	4
MATH Elective (Upper Division)		3
Minor Course (Upper Division)		3
GER domain (SP)		3
GER domain (AH, NS, SS, SP)		3
<b>Semester Hours</b>		<b>16</b>

**Year 4****Fall**

MATH 4896	Senior Undergraduate Research Project (Prerequisite)	2
MATH Elective (Upper Division)		3
Minor Course (Upper Division)		3
Elective (Upper Division)		3
Elective (Upper Division)		3
<b>Semester Hours</b>		<b>14</b>

**Spring**

MATH elective (4800 level or higher)		3
MATH elective (4800 level or higher)		3
Minor Course (Upper division)		3
Elective (Upper Division)		3
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>120</b>

## Learning Outcomes

The student learning outcomes for a BS in mathematics are as follows:

- Students will develop and demonstrate the ability to reason mathematically by constructing mathematical proofs and recognizing and accurately analyzing numerical data in all core courses. Students will learn that truth in mathematics is verified by careful argument, and will demonstrate the ability to make conjectures and form hypotheses, test the accuracy of their work, and effectively solve problems.
- Students will learn to identify fundamental concepts of mathematics as applied to science and other areas of mathematics, and to interconnect the roles of pure and applied mathematics.
- Students will demonstrate that they can communicate mathematical ideas effectively by completing a senior capstone project involving an investigative mathematical project and presenting their findings and results in both a written format and as an oral presentation to faculty and other students.

## Minor in Actuarial Science

COURSE	TITLE	S.H.
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
FIN 3720	Business Finance	3
STAT 4843	Theory of Probability	3
STAT upper-division elective		3
<b>Total Semester Hours</b>		<b>22</b>

If any of the above courses is part of the student's major, it may be substituted by an upper-division STAT course.

## Minor in Biomathematics

COURSE	TITLE	S.H.
Select one of the following:		4
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	
BIOL 3711 or BIOL 3780/3780L	Cell Biology: Fine Structure or General Ecology	3-5
Select at least 3 s.h. of upper-division biology courses.		3
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
STAT 3717 or STAT 3743	Statistical Methods or Probability and Statistics	4
Select one of the following:		3-4
MATH 2673	Calculus 3	
MATH 3705	Differential Equations	
MATH 3715	Discrete Mathematics	
MATH 3720	Linear Algebra and Matrix Theory	
MATH 3760	Numerical Analysis 1	
MATH 3785	Numerical Methods	
STAT 4817	Applied Statistics	
STAT 4848	Applied Regression Time Series	
MATH/BIOL 3701	Biomathematics Seminar	1
MATH/BIOL 4882	Biomathematics Research	1-2
<b>Total Semester Hours</b>		<b>27-31</b>

## Minor in Mathematics

COURSE	TITLE	S.H.
<b>Option 1</b>		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
Select at least 10 s.h. of course work with MATH 1572 as a prerequisite, including at least 6 s.h. of course numbered above 3700.		10
<b>Total Semester Hours</b>		<b>18</b>
<b>Option 2</b>		
MATH 1570	Applied Calculus 1	4
MATH 2670	Applied Calculus 2	5
Select at least 9 s.h. of course work with MATH 2670 or MATH 1572 as a prerequisite, including at least 6 s.h. of courses numbered above 3700.		9
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Statistics

COURSE	TITLE	S.H.
Select one of the following courses:		4-5
MATH 1570	Applied Calculus 1	
MATH 1571	Calculus 1	
MATH 1572	Calculus 2	
MATH 1585H	Accelerated Honors Calculus 1	
The following two statistics courses are required:		7
STAT 3717 or STAT 3743	Statistical Methods or Probability and Statistics	
STAT 4817	Applied Statistics	
Select an additional 9 s.h. of upper division STAT courses, excluding STAT 3717, 3743, and 4817		9
<b>Total Semester Hours</b>		<b>20-21</b>

For equivalent courses, consult the Department of Mathematics and Statistics.

Students whose major degree programs require one or more of the required courses for the minor may substitute other upper-division statistics electives for those requirements. In particular, mathematics majors satisfy the requirements of the minor through at least 18 s.h. of required courses comprised of STAT 3743, STAT 4817, and 11 hours of STAT electives at the 4800-level or higher.

## Department of Mechanical and Industrial Engineering

(330) 941-3016

Moser Hall, Room 2510

The Department of Mechanical and Industrial Engineering is dedicated to furthering the missions and objectives of the University and the College of Science, Technology, Engineering, and Mathematics. We focus on providing an opportunity for quality education in mechanical engineering and industrial and systems engineering while offering professional service to local and regional industry and to the public. The department is committed to providing its students with a broad, general education and an up-to-date technological curriculum in a four-year undergraduate program. It also offers an application-oriented evening Master of Science in Engineering program to practicing engineers and recent engineering graduates. An online Master of Engineering Management is also available.



**Hazel Marie**, Ph.D., Associate Professor, Chair

**Professor**

**S. Cory Brozina**, Ph.D., Assistant Professor

**Martin Cala**, Ph.D., Professor

**Kyosung Choo**, Ph.D., Assistant Professor

**Brett P. Conner**, Ph.D., Associate Professor

**Kevin Disotell**, Ph.D., Assistant Professor

**Hojjat Mehri**, Ph.D., Professor

**Stefan Moldovan**, Ph.D., Assistant Professor

**Jae Joong Ryu**, Ph.D., Assistant Professor

**Elvin B. Shields**, Ph.D., Professor

**Virgil C. Solomon**, Ph.D., Associate Professor

**Jason Walker**, Ph.D., Assistant Professor

**Darrell R. Wallace**, Ph.D., Associate Professor

**Instructor**

**Kelsey Lyda**, M.S., Instructor

**Anthony Viviano**, M.S., Instructor

## Majors

- Industrial and Systems Engineering Program (p. 555)
- Mechanical Engineering Program (p. 557)
- Manufacturing Engineering Program (p. 560)

## Minors

- Minor in Industrial and Systems Engineering (p. 560)
- Minor in Mechanical Engineering (p. 560)

## Mechanical Engineering

### MECH 1500 Drawing Fundamentals 3 s.h.

Visualization of objects for engineering communication. Freehand sketching, orthographic projection, multiview drawing, auxiliary views, sectional views, and dimensioning.

**Prereq.:** High school geometry or equivalent.

### MECH 1501 Engineering Communication with CAD 3 s.h.

Computer-aided drawing for engineering communication. 2D multiview drawings, 3D modeling including wire frame, solid, and surface models. Final design project using these tools is required. Two hours lecture, three hours laboratory per week.

**Prereq.:** MECH 1500 or equivalent.

### MECH 1560 Engineering Communication with CAD 2 s.h.

Commercially available software typically used in engineering practice will be used to develop traditional 2D engineering drawings and 3D solid models representing engineering components and systems. Teams of students will complete an engineering design project. One hour lecture and three hours laboratory per week.

**Prereq.:** ENGR 1560.

### MECH 2603 Thermodynamics 1 3 s.h.

Thermodynamic properties of gases and vapors, and their relationships in energy transformations. The First and Second Laws of thermodynamics. Introduction to thermodynamic cycles and efficiencies of power and refrigeration systems.

**Prereq.:** MATH 1572, CHEM 1515.

### MECH 2604 Thermodynamics 2 3 s.h.

Irreversibility and exergy, mixtures and solutions; psychometry. Introduction to phase and chemical equilibrium.

**Prereq.:** MECH 2603.

### MECH 2606 Engineering Materials 3 s.h.

Properties and uses of engineering materials, manufacturing processes, including heat treatments and forming operations. Introduction to mechanical testing methods. Listed also as MTEN 2606.

**Prereq.:** MATH 1571 or MATH 1585H.

### MECH 2620 Statics and Dynamics 3 s.h.

Principles of engineering mechanics as applied to statics and dynamics, Vector applications to forces and moments; centroid and center of gravity; static equilibrium. Kinematics of particles; Newton's laws; work-energy; and impulse momentum techniques using vector approach.

**Prereq.:** MATH 1572 and PHYS 2610 or concurrent.

### MECH 2641 Dynamics 3 s.h.

Kinematics of particles and rigid bodies. Newton's laws of motion, work-energy, and impulse momentum techniques applied to particle and rigid body motion using a vector approach.

**Prereq.:** CEEN 2601.

### MECH 3708 Dynamic Systems Modeling 4 s.h.

Mathematical modeling of linear mechanical, electrical, thermal, fluid, and mixed systems. State space variables. Frequency response. Computer simulation using modern computer tools. Three hours lecture and three hours laboratory per week.

**Prereq.:** MECH 2641, ECEN 2614, MATH 3705.

### MECH 3720 Fluid Dynamics 3 s.h.

Study of stationary fluids, and fluid dynamics of compressible and incompressible flows; dimensional analysis; boundary layers; subsonic and supersonic flows; lift and drag on bodies immersed in incompressible flows.

**Prereq.:** MECH 2603; MECH 2641; MATH 3705 or concurrent.

### MECH 3720L Fluid Dynamics Laboratory 1 s.h.

Experiments on incompressible and compressible fluid flows in the subsonic and supersonic regions. Three hours laboratory per week.

**Prereq.:** MECH 3720 or concurrent.

### MECH 3725 Heat Transfer 1 3 s.h.

Fundamentals of heat transfer by conduction, convection, and radiation. Heat transfer by combined modes.

**Prereq.:** MECH 3720 or concurrent.

### MECH 3725L Heat Transfer 1 1 s.h.

Fundamentals of heat transfer by conduction, convection, and radiation. Heat transfer by combined modes.

**Prereq.:** MECH 3720 or concurrent.

### MECH 3742 Kinematics of Machines 3 s.h.

Position, velocity, and acceleration analysis of mechanisms. Design of link and cam mechanisms to perform desired machine functions. Graphical, analytical, and commercial software applications.

**Prereq.:** MECH 2641, ENGR 1560 or MECH 1560.

### MECH 3751 Stress and Strain Analysis 1 3 s.h.

Analysis of internal forces, stresses, strains, and deflections in three dimensions. Dynamic loading including impact and fatigue. Theories of failure and energy methods. Must be taken concurrently with MECH 3751L.

**Prereq.:** CEEN 2602, MECH 2606.

**MECH 3751L Stress and Strain Analysis 1 Laboratory 1 s.h.**

Transmission and reflection photoelasticity. State and dynamic strain gage applications using computer-aided data acquisition. Three hours laboratory per week.

**Concurrent with:** MECH 3751.

**MECH 3762 Design of Machine Elements 3 s.h.**

Application of fundamental engineering principles to the design of various elements found in machines. Elements include connections, shafts, keys, couplings, springs, gears, belts, chains, bearings, clutches, brakes, screws, etc. Must be taken concurrently with MECH 3762L.

**Prereq.:** MECH 2641 and MECH 3751.

**MECH 3762L Design of Machine Elements Laboratory 1 s.h.**

Practical design problems incorporating analysis, material selection, and sizing of machine components utilizing the computer. Three hours laboratory per week. Must be taken concurrently with MECH 3762.

**MECH 4800 Special Topics 3 s.h.**

Special topics and new developments in mechanical engineering. Subject matter, credit hours, and special prerequisites are announced in advance of each offering. May be repeated to a maximum of 8 s.h. with different content.

**Prereq.:** Junior standing in Mechanical Engineering, or consent of instructor.

**MECH 4800E Special Topics Nucl Thermohydraulics, Simulation 3 s.h.**

Special topics and new developments in mechanical engineering. Subject matter, credit hours, and special prerequisites are announced in advance of each offering. May be repeated to a maximum of 8 s.h. with different content.

**Prereq.:** Junior standing in Mechanical Engineering, or consent of instructor.

**MECH 4808 Mechanical Systems Design 1 2 s.h.**

Detailed design of a mechanical engineering system utilizing expertise expected of a new graduate in an industry setting. Design methodology, case studies, oral presentations, and written reports prepare the student to function as part of a design team on a capstone project. MECH 4809 must be taken at the next offering after completing 4808. Grading in MECH 4808 is Traditional/PR. Two hours lecture per week.

**Prereq.:** MECH 3708, MECH 3725, MECH 3742, and MECH 3762.

**Gen Ed:** Capstone.

**MECH 4808L Mechanical Systems Design Laboratory 1 s.h.**

Supplemental activities related to MECH 4808, such as discussion and seminars on industry practices and standards, computer software applications, experimental verification, etc. Three hours laboratory per week. Must be taken concurrently with MECH 4808.

**Gen Ed:** Capstone.

**MECH 4809 Mechanical Systems Design 2 3 s.h.**

Detailed design of a mechanical engineering system utilizing expertise expected of a new graduate in an industry setting. Design methodology, case studies, oral presentations, and written reports prepare the student to function as part of a design team on a capstone project. MECH 4809 must be taken at the next offering after completing 4808. Three hours lecture per week.

**Prereq.:** MECH 4808.

**Gen Ed:** Capstone.

**MECH 4809L Mechanical Systems Design Laboratory 2 1 s.h.**

Supplemental activities related to MECH 4808 and MECH 4809, such as discussions and seminars on industry practices and standards, computer software applications, experimental verifications, etc. Three hours laboratory per week. MECH 4808L must be taken concurrently with MECH 4808 and MECH 4809L must be taken concurrently with MECH 4809.

**MECH 4823 Heating, Ventilation, and Air Conditioning 3 s.h.**

Design of heating and air conditioning systems for residential, commercial, and industrial complexes. Human comfort, psychometries, and environmental issues. Computer simulation of heating and cooling load for steady-state and transient conditions. Selection of controls and equipment.

**Prereq.:** MECH 3725.

**MECH 4825L Heat Transfer and Thermodynamics Laboratory 1 s.h.**

Experiments involving basic measurement techniques, power and refrigeration cycles, heat transfer, heat exchangers, and energy systems. Three hours laboratory per week.

**Prereq.:** MECH 3720, MECH 3725.

**MECH 4835 Thermal Fluid Applications 3 s.h.**

Application of the principles of thermodynamics, fluid dynamics, and heat transfer to design. Design, analysis and computer simulation of thermal fluid systems and components.

**Prereq.:** MECH 3725.

**MECH 4872L Engineering Acoustics Laboratory 1 s.h.**

Applications of acoustics instrumentation to problems involving room acoustics, sounds in pipes, noise barriers, and machinery noise. Taken concurrently with MECH 5872. Three hours laboratory a week.

**MECH 5811 Solar Engineering 3 s.h.**

Radiational characteristics of solar energy, glass materials and selective coatings. Analysis of flat plate collectors, concentrators, and thermal storage. System simulation and economic analysis for optimization of basic solar systems.

**Prereq.:** PHYS 2611, MECH 3725 or consent of chairperson.

**MECH 5825 Heat Transfer 2 3 s.h.**

Advanced topics in heat transfer. Multi-dimensional conduction, free convection, phase change heat transfer and thermal radiation. Integration of analytical, numerical, and computational methods into design projects.

**Prereq.:** MECH 3708 and MECH 3725.

**MECH 5836 Fluid Power and Control 3 s.h.**

Theory of prime movers, turbomachinery, and control systems. Modeling of hydraulic and pneumatic systems and components. Hydraulic fluids, pumps, cylinders, valves, motors, compressors, and actuators. Hydraulic and pneumatic circuit applications and control.

**Prereq.:** MECH 3725.

**MECH 5842 Kinetics of Machines 3 s.h.**

Three dimensional kinematics and dynamics of machines. Dynamic analysis and design; balancing of machines.

**Prereq.:** MECH 3742.

**MECH 5852 Stress and Strain Analysis 2 3 s.h.**

Continuation of MECH 3751. Introduction to applied elasticity theory including plane stress and strain and stress functions. Plastic and creep behavior of materials. Introduction to instability. Emphasis on design applications.

**Prereq.:** MECH 3751, MECH 3751L, MATH 3705.

**MECH 5872 Engineering Acoustics 3 s.h.**

The nature of sound and its propagation; analysis and control of sound and noise production in mechanical equipment; transmission and absorption of sound in engineering materials, ultrasonics, structural acoustics, base measurements, and equipment.

**Prereq.:** MECH 3708.

**MECH 5881 Mechanical Vibrations 3 s.h.**

Introduction to mechanical vibrations: single and multi-degree of freedom systems, free and forced vibrations, impedance and modal analysis including applications.

**Prereq.:** MECH 3708.

**MECH 5881L Mechanical Vibrations Laboratory 1 s.h.**

Introduction to vibrations measurements. Experiments with mechanical systems, computer simulation of vibration systems. Experimental determination of component models and parameters. Three hours laboratory per week.

**Prereq.:** MECH 5881.

**MECH 5884 Finite Element Analysis 3 s.h.**

Fundamental principles of finite element analysis with emphasis on applications to design in areas of stress analysis, vibrations, and heat transfer. Use of commercial software.

**Prereq.:** MECH 3708, MECH 3725, MECH 3751.

**MECH 5885 Computational Fluid Dynamics 3 s.h.**

Applied numerical analysis, including solution of linear algebraic equations and ordinary and partial differential equations; modeling of physical processes, including fluid flow and heat and mass transfer; use of general purpose computer codes, including commercial computational fluid dynamics software packages.

**Prereq.:** MECH 3720 and MECH 3725.

**MECH 5892 Control of Mechanical Systems 3 s.h.**

Introduction to theory of feedback and control. Performance and stability of linear systems. Design of feedback control systems. Practical application and introduction to state-space methods. Two hours lecture and three hours laboratory per week.

**Prereq.:** MECH 3708.

## Industrial Engineering

**ISEN 1560 Principles of Systems Design 2 s.h.**

An introduction to creative thought processes and analytical tools that are used to develop human usable systems. Cognitive theory provides a foundation for analyzing human/machine interactions within systems. Cases are used to elucidate accident causation theory and exercise the application of risk reduction strategies.

**Prereq.:** ENGR 1550.

**ISEN 3710 Engineering Statistics 3 s.h.**

Applications of data collection and analysis techniques to engineering problems. Techniques for data structuring, data modeling, parameter estimation, and design of experiments utilizing engineering data.

**Prereq.:** MATH 1571.

**ISEN 3716 Systems Analysis and Design 3 s.h.**

Analysis and design of systems. Decomposition of large systems into subsystems. Analysis, modeling, and design of subsystems. Integration of subsystems. Visual BASIC programming as a modeling tool.

**Prereq.:** MATH 1571.

**ISEN 3720 Statistical Quality Control 3 s.h.**

Concepts of data-based quality control techniques. Intermediate design of experiments as an off-line quality control technique using ANOVA techniques. Process control chart construction and applications as on-line quality control techniques. Basics of acceptance sampling systems and standards.

**Prereq.:** ISEN 3710 or equivalent.

**ISEN 3723 Manufacturing Processes 3 s.h.**

Introduction to properties and uses of engineering materials. Introduction to mechanical testing methods, metrology, tolerances, testing and inspection; semi-finished product manufacturing; macro-processing (forming, casting, powder metallurgy, metal working, composite fabrication); joining; nontraditional manufacturing processes; and surface processing. **Prereq.** MATH 1572.

**ISEN 3724 Engineering Economy 3 s.h.**

The analysis and evaluation of factors that affect the economic success of engineering projects. Topics include interest, depreciation, cost classification, comparison of alternatives, make-buy decisions, replacement models and after-tax analysis.

**Prereq.:** MATH 1571.

**ISEN 3727 Simulation of Industrial Engineering Systems 3 s.h.**

Techniques for the digital simulation of industrial engineering systems which can be represented via discrete event models. The generation of random variables, shaping of probability distributions, model structuring, model verification, and the simulation of inventory, queuing, and quality control systems in a high-level structured programming language. A special-purpose simulation language for expanding the class of problems which can be economically modeled.

**Prereq.:** ISEN 3710, ISEN 3716.

**ISEN 3736 Methods Engineering 2 s.h.**

Techniques for analysis of task performance, the use of process charts, and various methods of work simplification, human-machine relation analysis. Theory and practice of time study and other methods of measuring and establishing performance level and productivity.

**Prereq.:** ISEN 3710 or equivalent.

**ISEN 3736L Methods Engineering Laboratory 1 s.h.**

Practice in analyzing and recording tasks. Determination of time standards and productivity requirements. Analysis and evaluation of actual plant operations. Taken concurrently with ISEN 3736. Three hours laboratory per week.

**ISEN 3745 Accounting for Engineers 3 s.h.**

Review of labor and material costing systems. Introduction to cost accounting systems. Practice in development of forecasting and estimating systems. Process, operation and product costing systems. Elements of financial accounting systems that affect engineering decisions.

**Prereq.:** ISEN 3724 or equivalent.

**ISEN 4810 Special Topics 3 s.h.**

Special topics and new developments in Industrial Engineering. Subject matter, credit hours, and special prerequisites to be announced in advance of each offering.

**Prereq.:** senior standing in Industrial Engineering or consent of instructor.

**ISEN 4821 Capstone Design 1: Manufacturing and Service Systems 3 s.h.**

The application of engineering techniques to the analysis, design, layout, and justification of manufacturing and service facilities. Subjects covered include, equipment selection, process flow, and material flow. The system design involves field investigation, acquisition and analysis of data, use of computer-aided facilities planning and design software, preparation of drawings, and writing a final report. Grading is Traditional/PR.

**Prereq.:** ISEN 3723, ISEN 3736, ISEN 5801, and 96 s.h. of engineering degree credits.

**Gen Ed:** Capstone.

**ISEN 4822 Capstone Design 2: Logistics Systems 3 s.h.**

Analysis, planning and design of material handling, storage/warehouse and logistics systems. The fundamental analytic tools, approaches, and techniques which are useful in the planning, design, layout, and operation of logistics systems and integrated supply chains. Development and use of fundamental models to illustrate the underlying concepts involved in both intra- and inter-company logistics operations.

**Prereq.:** ISEN 4821.

**Gen Ed:** Capstone.

**ISEN 5801 Operations Research 1 3 s.h.**

Formulation and solution of engineering problems using linear programming. Model formulation, the primal, dual, and transportation simplex methods, duality theory, and sensitivity analysis.

**Prereq.:** MATH 2673.

**ISEN 5811L Manufacturing Practices I Laboratory 1 s.h.**

Experimental analysis of manufacturing processes. Process control and data acquisition. Experimental design applied to processes including polymer processes, casting, machining, and joining. Three hours laboratory.

**Prereq. or concurrent** ISEN 3723.

**ISEN 5812L Manufacturing Practices 2 Laboratory 1 s.h.**

Experimental analysis of advanced manufacturing techniques. Advanced sensing and controlling technologies. Real-time monitoring, metrology, and data acquisition. Numerically controlled (NC) machines and programming. Net-shape and additive manufacturing.

**Prereq. or concurrent** ISEN 5823.

**ISEN 5820 Advanced Quality for Engineers 3 s.h.**

Applications and practices of quality control in industry. Engineering and administrative aspects of quality control programs, process control, and acceptance sampling. Application of quantitative methods to the design and evaluation of engineered products, processes, and systems.

**Prereq.:** ISEN 3720.

**ISEN 5823 Automation 3 s.h.**

Principles and applications of sensing, actuation and control. Emphasis on hydraulic and pneumatic systems. Industrial process controllers, sensors and machine vision. Design and cost considerations for industrial automation applications.

**Prereq.:** MECH 2641, ECEN 2614 or consent of instructor.

**ISEN 5825 Advanced Engineering Economy 3 s.h.**

An extension of the topics in engineering economy. Analysis of rationale and norm of decision making, risk and uncertainty models, utility theory, measurement of productivity, and advanced project comparison methods.

**Prereq.:** ISEN 3724.

**ISEN 5830 Human Factors Engineering 3 s.h.**

Various aspects of human factors in the design of human-machine systems and environments. Study of human sensory, perceptual, mental, psychomotor, and other characteristics; techniques of measuring human capabilities, limitations, safety, comfort, and productivity.

**Prereq.:** MATH 2673.

**ISEN 5850 Operations Research 2 3 s.h.**

Formulation and solution of industrial engineering problems using operational research models. Topics include queuing models and the specialization of linear models to equipment replacement, project planning, assignment, and transshipment problems.

**Prereq.:** ISEN 5801.

**ISEN 5880 Management of Technology 3 s.h.**

The course discusses major topics in management of technology and innovations. Dynamics of technology innovation, sources of technology innovations, corporate technology strategy, collaboration and intellectual property, structures and process for innovations, idea generation, commercialization of technology and innovations, and market entry.

**Prereq.:** Senior standing or consent of instructor.

**ISEN 5881 Competitive Manufacturing Management 3 s.h.**

Basic principles of manufacturing competitiveness. The role of engineers in promoting competitiveness. Discussion of new technologies used in modern manufacturing management including, continuous improvement, waste elimination, JIT, lean production systems, setup time reduction, equipment maintenance/improvement, total quality management, and supply chain management.

**Prereq.:** ISEN 3723 or consent of instructor.

## Bachelor of Engineering in Industrial and Systems Engineering

(330) 941-3016

The industrial and systems engineer functions as a problem-solver, innovator, coordinator, and agent of change in a wide variety of positions in manufacturing industries, service industries, and government. The industrial and systems engineer's unique background combines a study of science, mathematics, and management principles with the principles of engineering analysis and design to provide access to a wide variety of flexible technical and managerial careers.

The aim of the industrial and systems engineering program is to produce graduates who secure professional engineering positions, practice the profession ethically and effectively, maintain their professional competency through lifelong learning, and advance in one of the many technical and managerial career paths available to industrial and systems engineers.

The program prepares its students for these accomplishments by providing them with a broad scientific and engineering base via courses in mathematics, physics, chemistry, and the engineering sciences. In addition, courses in the social sciences and the humanities develop sensitivity to the social context within which the profession must be ethically practiced. Finally, industrial and systems engineering courses in the areas of manufacturing systems, human-

machine systems, management systems, and management science develop the technical expertise required by professional practice.

## Program Educational Objectives

The industrial and systems engineering program at Youngstown State University is committed to offering its students a high standard of educational training. In fulfillment of its mission, as well as the missions of the College of STEM and the University, the program has established educational objectives that ensure graduating engineers have the educational knowledge and skills to practice industrial engineering effectively. The objectives of the Industrial and Systems Engineering Program are for our graduates to be:

- Professionals who are technically competent in modern industrial engineering based careers, as well as other emerging disciplines.
- World citizens who exhibit leadership qualities in their chosen disciplines, and who pursue continuing education through advanced degrees, certifications, licensure, etc.
- Active contributors to their professions, industries and/or communities.

## Industrial and Systems Engineering Laboratories

The industrial and systems engineering laboratory spaces are located in Moser Hall and are equipped with hardware, software and networks to serve experiences within the curriculum that are hands on, team based, and communications or computational intensive. Laboratory experiences develop capabilities to design detailed components and to integrate solutions into large scale systems. Successively more challenging assignments are taken on throughout the curriculum and culminate in comprehensive experiences in the capstone facilities design sequence.

The industrial and systems engineering program makes optimum use of the Engineering Computing Complex, which is equipped with state-of-the-art computation, design, and communication hardware and software of a multi-disciplinary nature.

The ISE Project Laboratory is focused on team-based activities throughout the curriculum and particularly serves the methods engineering, human factors engineering and facilities design areas. At its core is a network of computing stations equipped with modern industrial and systems engineering software. Data collection and processing software supports video analysis of human performance, workspace and manufacturing cell design, facility layout, flow analysis and line balancing. The goal of this laboratory is to be able to cover any topic from the planning of initial resources for a start-up enterprise to the distribution of goods and services in global networks.

The Automation Laboratory Suite is a collection of spaces where students at all levels can learn and achieve together with an opportunity to make sustainable contributions to an initial or on-going project experience. It encompasses programmable robots, programmable logic controllers, vibratory bowl feeders, reciprocating feeders, power conveyors and numerous actuator and sensing devices.

The Manufacturing Laboratory Suite consists of several spaces containing equipment for rapid prototyping, casting processes, plastic injection molding and blow molding processes, CNC machining processes, sheet metal processing and instrumentation for inspection, measurement, and testing.

For more information, visit **Industrial And Systems Engineering** (<http://www.yasu.edu/academics/science-technology-engineering-mathematics/industrial-and-systems-engineering-major>).

## Cooperative Education

The industrial and systems engineering program strongly encourages its students to actively participate in the optional cooperative education program. The parallel co-op arrangement which combines work and study each semester is recommended. However, full-time employment in the summer

can also be included. Students must register for a co-op course and submit documentation as specified by professional practice office. Currently a substitution of one elective course with three co-op experiences is allowed.

## Advisement

The industrial and systems engineering program specifies mandatory advisement. Every student in the program is advised every semester before his or her registration. Students cannot finalize their registration without approval of the faculty advisor or program coordinator.

### Industrial & Systems Engineering Program

COURSE	TITLE	S.H.
<b>Industrial Engineering Courses</b>		
ISEN 3710	Engineering Statistics	3
ISEN 3716	Systems Analysis and Design	3
ISEN 3720	Statistical Quality Control	3
ISEN 3723	Manufacturing Processes	3
ISEN 3724	Engineering Economy	3
ISEN 3727	Simulation of Industrial Engineering Systems	3
ISEN 3736	Methods Engineering	2
ISEN 3736L	Methods Engineering Laboratory	1
ISEN 3745	Accounting for Engineers	3
ISEN 4821	Capstone Design 1: Manufacturing and Service Systems	3
ISEN 4822	Capstone Design 2: Logistics Systems	3
ISEN 5801	Operations Research 1	3
*ISEN Elective (4)		12
<b>Other Engineering Courses</b>		
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
CEEN 2601	Statics	3
ECEN 2614	Basics of Electrical Engineering	3
MECH 2641	Dynamics	3
**STEM Elective		4
<b>Mathematics Courses</b>		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
***Math Elective		3
<b>Science Courses</b>		
CHEM 1515	General Chemistry 1	4
PHYS 2610	General Physics 1	4
PHYS 2611	General Physics 2	4
Science Elective		3
<b>Communication Courses</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
<b>General Education Requirement Courses</b>		
<b>Arts &amp; Humanities Elective (2)</b>		6
<b>Social Studies Elective (2)</b>		6
<b>Social &amp; Personal Awareness Elective (2)</b>		6
<b>Total Semester Hours Required</b>		120
<b>*ISEN Required Electives</b>		
ISEN 5820	Advanced Quality for Engineers	3
ISEN 5823	Automation	3

ISEN 5830	Human Factors Engineering	3
ISEN 5850	Operations Research 2	3
ISEN 5881	Competitive Manufacturing Management	3
<b>** STEM Recommended Elective</b>		
MECH 1560	Engineering Communication with CAD	2
MECH 2606	Engineering Materials	3
CSIS 2610	Programming and Problem-Solving	4
ISEN 5811L	Manufacturing Practices I Laboratory	1

<b>***MATH Elective</b>		
MATH 3705	Differential Equations	3
MATH 3720	Linear Algebra and Matrix Theory	3

<b>Recommended GER Electives</b>		
PHIL 1561	Technology and Human Values	3
PHIL 2626	Engineering Ethics	3
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
FNUT 1551	Normal Nutrition	3
COUN 1587	Introduction to Health and Wellness in Contemporary Society	3

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 1571	Calculus 1	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
<b>Semester Hours</b>		<b>14</b>

<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
PHYS 2610	General Physics 1	4
ENGR 1560	Engineering Computing	2
<b>Semester Hours</b>		<b>13</b>

<b>Year 2</b>		
<b>Fall</b>		
ISEN 3710	Engineering Statistics	3
ISEN 3724	Engineering Economy	3
MATH 2673	Calculus 3	4
CSIS 2610	Programming and Problem-Solving (others with consent of Program Coordinator)	4
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>17</b>

<b>Spring</b>		
ISEN 3716	Systems Analysis and Design	3
ISEN 3736 & 3736L	Methods Engineering and Methods Engineering Laboratory	3
PHYS 2611	General Physics 2	4
CEEN 2601	Statics	3
GER Elective (SS)		3
<b>Semester Hours</b>		<b>16</b>

<b>Year 3</b>		
<b>Fall</b>		
ISEN 3723	Manufacturing Processes	3
ISEN 3727	Simulation of Industrial Engineering Systems	3

ISEN 3745	Accounting for Engineers	3
ECEN 2614	Basics of Electrical Engineering (others with consent of Program Coordinator)	3
MECH 2641	Dynamics	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ISEN 3720	Statistical Quality Control	3
ISEN Elective 1 (Spring)		3
ISEN Elective 2 (Spring)		3
MATH Elective		3
GER Elective (SS)		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
ISEN 4821	Capstone Design 1: Manufacturing and Service Systems	3
ISEN 5801	Operations Research 1	3
ISEN Elective 3 (Fall)		3
Science Elective		3
GER Elective (SPA)		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ISEN 4822	Capstone Design 2: Logistics Systems	3
ISEN Elective 4 (Spring)		3
GER Elective (SPA)		3
GER Elective (AH)		3
GER Elective (AH)		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

## Required STEM and Electives

COURSE	TITLE	S.H.
<b>Required Stem Hours</b>		
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
CSIS 2610	Programming and Problem-Solving	4
CEEN 2601	Statics	3
ECEN 2614	Basics of Electrical Engineering	3
MECH 2641	Dynamics	3
MECH 1560	Engineering Communication with CAD	2
MECH 2606	Engineering Materials	3
<b>Recommended GER Electives</b>		
SOC 1500	Introduction to Sociology (SS)	3
PSYC 1560	General Psychology (SS)	3
PHIL 1561	Technology and Human Values (AH)	3
PHIL 2626	Engineering Ethics (AH)	3
FNUT 1551	Normal Nutrition (SPA)	3
COUN 1587	Introduction to Health and Wellness in Contemporary Society (SPA)	3
<b>Math &amp; Natural Science Electives</b>		
MATH 3720 or MATH 3705	Linear Algebra and Matrix Theory Differential Equations	3
Natural Science (various)		3

## Program Student Outcomes

To achieve the program educational objectives, our students are expected to have attained the required professional, technical, and social experience in the program with the ability to:

- 1-1. Apply knowledge of mathematics, science, and engineering science to solve engineering problems.
- 1-2. Utilize their design knowledge, skills, and technical experience to practice engineering.
- 1-3. Incorporate design of experiments with engineering analysis and design.
- 1-4. Use design techniques to design systems, components, and processes that satisfy predetermined economic, environmental, manufacturability, ethical, social, health, and safety constraints.
- 1-5. Recognize technical problems, develop ideas and formulate methods to determine acceptable solutions.
- 2-1. Work as a member of an engineering team in industrial engineering practice.
- 2-2. Accept project responsibilities and use problem solving skills.
- 2-3. Understand their professional roles and ethical responsibilities in the engineering profession and society.
- 3-1. Communicate their ideas and the application of engineering skills orally and/or in writing.
- 3-2. Understand the global impact of engineering solutions on societal needs.
- 3-3. Understand that the technology is constantly changing and industrial engineers must upgrade their knowledge in conjunction with the technological changes.
- 4-1. Recognize the importance of professional development through involvement and leadership in technical societies such as the IIE.
- 4-2. Have the broad knowledge to understand contemporary issues pertaining to the interaction between technology and society.

## Bachelor of Engineering in Mechanical Engineering

Mechanical engineering is the branch of the engineering profession that deals with:

- the conversion and use of energy
- the design of machines and engines
- the instrumentation and control of physical processes, systems and environments

The challenge of mechanical engineering is to use the principles of mathematics, along with the physical and thermal sciences, to develop and construct well designed machines and machine systems. Mechanical engineers are concerned with the practical purpose and function of a machine or system, as well as its design for strength, reliability, safety, economy, and appearance.

## Program Mission

The mission of the mechanical engineering program is to further the missions and objectives of the University and the College of Science, Technology, Engineering and Mathematics by providing an opportunity for a quality education in Mechanical Engineering to the people it serves, particularly those in northeast Ohio and western Pennsylvania. The program also strives to provide professional service to the local and regional industry and to the

public. The program is committed to meeting regional and state-wide priorities in higher education by providing its students with a broad, general education and an up-to-date technological curriculum in a four-year undergraduate program, and an application-oriented evening graduate program, offering a Master of Science in Engineering degree to practicing engineers and recent engineering graduates. The program also strives to enhance quality research and scholarly activities to be integrated with teaching and meet the needs of the region by providing area schools, businesses, industries, and government agencies with technical expertise.

## Program Educational Objectives

The program educational objectives of the mechanical engineering undergraduate program are to educate graduates who will be professional, productive, and ethical members of society. As they progress professionally after graduation, our alumni will do the following:

1. Demonstrate **successful application of mechanical engineering knowledge and skills** through:
  - a. employment in leadership roles in industry, academia, government, or other organizations
  - b. engagement in research and development in graduate study or industry
  - c. analytical problem solving in less traditional careers such as law, medicine, business, public policy, secondary education, service industries, etc.
  - d. mentorship of younger engineers in careers involving management or entrepreneurship
2. Demonstrate the **commitment to lifelong learning** through:
  - a. active participation in professional development opportunities in their disciplines; such as conferences, short courses, graduate education
  - b. development of new knowledge and skills necessary for new areas of expertise or careers
  - c. adaptation of their fundamental engineering knowledge for effectiveness in changing global markets and workforce trends
3. Demonstrate **active engagement in professional service** through:
  - a. application of their engineering knowledge to advance society and to help solve technical and societal problems
  - b. engagement in activities that promote sustainable economic development that enhances the quality of life
  - c. promotion of the engineering profession as a source of societal good
  - d. participation in community activities where their engineering knowledge adds significantly to their contributions

These Program Educational Objectives describe long-term accomplishments for which we seek to prepare the graduates of Youngstown State University mechanical engineering program. It is expected that progress toward these objectives is measurable.

## Vision Statement

Mechanical engineering and mechanical engineering education, in particular, face dramatic challenges in the future due to rapidly changing technologies and a new pattern of societal and industrial demands. The vision of the program is to meet these challenges and exceed the expectations of its constituents by focusing on the following primary strategies of the program:

- Continuous improvement of an educational environment for outstanding teaching and learning
- Development of a productive research program through a strategic focus on technology development in emerging areas such as green energy, computer simulation, and nanotechnology
- Successful co-op and internship programs that provides students with on-the-job training opportunities
- An assessment program and procedures in order to insure a high quality program focusing on the needs of the program's constituents (the

- students, alumni, employers, faculty, administrations, community and the general public)
- Healthy enrollment that facilitates diversification of curriculum and faculty research and professional development

In order to achieve its educational objectives and to further the missions and objectives of the University and the College, the program provides an educational environment, teeming with opportunities for students to learn and acquire essential knowledge and skills that are defined in the ABET Criteria 2000, through its curriculum and extra-curricular activities. The program maintains undergraduate and graduate curricula that are well balanced in engineering fundamentals, state-of-the-art technology, and real-world engineering applications, in the primary specialty areas of fluid thermal sciences, and mechanics of deformable bodies. The undergraduate curriculum also contains courses that foster:

- critical and independent thinking
- decision making
- development of interpersonal communication and a life-long learning attitude
- working within a team
- integration of knowledge, skills, ethics, and personal responsibility

Although the program intends to cultivate the capabilities of its students' problem solving, fundamental and advanced engineering analyses, design, research, and development, it also intends to provide the students with maximum exposure to hands-on, experimental skills to insure the high quality of its graduates. Through courses like stress analysis, thermal fluid applications, and finite element analysis, students will acquire strong tools for design and pertinent knowledge to solve real-world engineering problems. Our emphasis on engineering applications, computer simulation, and hands-on experience are complementary to each other and encourage students to apply analytical methods to engineering problems.

This approach enhances the effectiveness of teaching and also facilitates the students' understanding of abstract and difficult subjects. The ultimate goal of the program is to provide the society and industry with "whole person" mechanical engineers with superior technical capability.

## Mechanical Engineering Laboratories

The mechanical engineering program maintains six physical experimental laboratories in Moser Hall. A wide array of modern equipment, instrumentation devices, and department-owned computers are housed in spacious rooms that support academic instruction and research activities in applied thermodynamics, heating and air conditioning, fluid mechanics, heat transfer, stress analysis, vibrations, and material property characterization. Other mechanical engineering laboratories are simulation and computing-related laboratories that include computer-aided design, machine design, kinematic and dynamic systems, and finite-element analysis. The College and the mechanical engineering program maintain modern computing facilities in Moser Hall and constantly upgrade hardware and software. The students and faculty also use the university computing facilities in Meshel Hall and Kilcawley Center.

For more information, visit **Mechanical Engineering** (<http://www.yzu.edu/academics/science-technology-engineering-mathematics/mechanical-engineering-major/>).

## Cooperative Education

The mechanical engineering program strongly encourages its students to actively participate in the optional cooperative education program. The parallel co-op arrangement which combines work and study each semester is recommended. However, full time employment in the summer can also be included. Students must register for a co-op course and submit documentation as specified by professional practice office.

# Advisement

The mechanical engineering program specifies mandatory advisement. Every student in the program is advised every semester before his or her registration. Students cannot finalize their registration without approval of the faculty advisor or chair.

COURSE	TITLE	S.H.
<b>Mechanical Engineering Program Curriculum Sheet</b>		
<b>Course List</b>		
<b>Mechanical Engineering Courses</b>		
MECH 1560	Engineering Communication with CAD	2
MECH 2603	Thermodynamics 1	3
MECH 2604	Thermodynamics 2	3
MECH 2606	Engineering Materials	3
MECH 2641	Dynamics	3
MECH 3708	Dynamic Systems Modeling	4
MECH 3720	Fluid Dynamics	3
MECH 3720L	Fluid Dynamics Laboratory	1
MECH 3725	Heat Transfer 1	3
MECH 3742	Kinematics of Machines	3
MECH 3751	Stress and Strain Analysis 1	3
MECH 3751L	Stress and Strain Analysis 1 Laboratory	1
MECH 3762	Design of Machine Elements	3
MECH 3762L	Design of Machine Elements Laboratory	1
MECH 4808	Mechanical Systems Design 1	2
MECH 4808L	Mechanical Systems Design Laboratory	1
MECH 4809	Mechanical Systems Design 2	3
MECH 4809L	Mechanical Systems Design Laboratory 2	1
MECH 4825L	Heat Transfer and Thermodynamics Laboratory	1
MECH 5881	Mechanical Vibrations	3
MECH 5881L	Mechanical Vibrations Laboratory	1
MECH electives (3)		9
<b>Other Engineering Courses</b>		
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
CEEN 2601	Statics	3
CEEN 2602	Strength of Materials	3
CEEN 2602L	Strength of Materials Lab	1
ECEN 2614	Basics of Electrical Engineering	3
ISEN 3710	Engineering Statistics	3
<b>Mathematics courses</b>		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
<b>Chemistry and Physics courses</b>		
CHEM 1515	General Chemistry 1	4
PHYS 2610	General Physics 1	4
PHYS 2611	General Physics 2	4
<b>Communication courses</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
<b>General Education Requirement courses</b>		
PHIL 2625	Introduction to Professional Ethics	3

Arts and Humanities elective (1)	3
ECON 2610 Principles 1: Microeconomics	3
Social Studies elective (1)	3
Social and Personal Awareness electives (2)	6

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
MATH 1571	Calculus 1	4
CHEM 1515	General Chemistry 1	4
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
GER Elective (SPA)		3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
PHYS 2610	General Physics 1	4
CMST 1545	Communication Foundations	3
ENGR 1560	Engineering Computing	2
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
MECH 1560	Engineering Communication with CAD	2
MECH 2606	Engineering Materials	3
MATH 2673	Calculus 3	4
PHYS 2611	General Physics 2	4
CEEN 2601	Statics	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
MECH 2603	Thermodynamics 1	3
MECH 2641	Dynamics	3
MATH 3705	Differential Equations	3
CEEN 2602	Strength of Materials	3
CEEN 2602L	Strength of Materials Lab	1
ECEN 2614	Basics of Electrical Engineering	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
MECH 3720	Fluid Dynamics	3
MECH 3742	Kinematics of Machines	3
MECH 3751	Stress and Strain Analysis 1	3
MECH 3751L	Stress and Strain Analysis 1 Laboratory	1
ISEN 3710	Engineering Statistics	3
ECON 2610	Principles 1: Microeconomics	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
MECH 2604	Thermodynamics 2	3
MECH 3708	Dynamic Systems Modeling	4
MECH 3720L	Fluid Dynamics Laboratory	1
MECH 3725	Heat Transfer 1	3
MECH 3762	Design of Machine Elements	3
MECH 3762L	Design of Machine Elements Laboratory	1
<b>Semester Hours</b>		<b>15</b>



**Year 4****Fall**

MECH 4808	Mechanical Systems Design 1	2
MECH 4808L	Mechanical Systems Design Laboratory	1
MECH 4825L	Heat Transfer and Thermodynamics Laboratory	1
MECH 5881	Mechanical Vibrations	3
PHIL 2625	Introduction to Professional Ethics	3
MECH Elective		3
GER Elective (SS)		3
<b>Semester Hours</b>		<b>16</b>

**Spring**

MECH 4809	Mechanical Systems Design 2	3
MECH 4809L	Mechanical Systems Design Laboratory 2	1
MECH 5881L	Mechanical Vibrations Laboratory	1
MECH Elective		3
MECH Elective		3
GER Elective (AH)		3
GER Elective (SPA)		3
<b>Semester Hours</b>		<b>17</b>
<b>Total Semester Hours</b>		<b>129</b>

**Mechanical Engineering Electives**

COURSE	TITLE	S.H.
<b>Heat &amp; Fluid Flow</b>		
MECH 4800	Special Topics	3
MECH 4823	Heating, Ventilation, and Air Conditioning	3
MECH 4835	Thermal Fluid Applications	3
MECH 5825	Heat Transfer 2	3
MECH 5836	Fluid Power and Control	3
MECH 5885	Computational Fluid Dynamics	3
<b>Soild Mechanics</b>		
MECH 4800	Special Topics	3
MECH 5842	Kinetics of Machines	3
MECH 5852	Stress and Strain Analysis 2	3
MECH 5884	Finite Element Analysis	3
MECH 5892	Control of Mechanical Systems	3

**Program Outcomes**

The YSU mechanical engineering program student outcomes ensure that our graduates have been given the skills to attain the program educational objectives after graduation. Student outcomes for direct assessment are ABET specified outcomes (a) through (k). Our students are expected to graduate with:

- (a) An ability to apply knowledge of mathematics, science, and engineering.
- (b) An ability to design and conduct experiments, as well as to analyze and interpret data.
- (c) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental social, political, ethical, health and safety, manufacturability, and sustainability.
- (d) An ability to function on multi-disciplinary teams.
- (e) An ability to identify, formulate, and solve engineering problems.
- (f) An understanding of professional and ethical responsibility.
- (g) An ability to communicate effectively.

- (h) The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- (i) A recognition of the need for, and an ability to engage in life-long learning.
- (j) A knowledge of contemporary issues.
- (k) An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

**Minor in Industrial and Systems Engineering**

COURSE	TITLE	S.H.
ISEN 3710	Engineering Statistics	3
ISEN 3716	Systems Analysis and Design	3
ISEN 3720	Statistical Quality Control	3
ISEN 3723	Manufacturing Processes	3
ISEN 3724	Engineering Economy	3
ISEN 3736 & 3736L	Methods Engineering and Methods Engineering Laboratory	3
<b>Total Semester Hours</b>		<b>18</b>

**Minor in Mechanical Engineering**

COURSE	TITLE	S.H.
MECH 2603	Thermodynamics 1	3
MECH 2604	Thermodynamics 2	3
MECH 2641	Dynamics	3
MECH 3720	Fluid Dynamics	3
MECH 3742	Kinematics of Machines	3
MECH 3751	Stress and Strain Analysis 1	3
<b>Total Semester Hours</b>		<b>18</b>

**Bachelor of Engineering in Manufacturing Engineering**

The Bachelor of Engineering degree in Manufacturing Engineering provides students with expertise that focuses on the processes needed to produce physical goods and materials. Students will gain a strong foundation in materials, mechanical engineering, and design to support their understanding of the mechanics of processes. They will also gain foundational understanding of industrial engineering concepts to support their ability to optimize production systems for maximum efficiency. Topics will include traditional manufacturing as well as modern digital manufacturing (additive manufacturing / 3D printing) processes and automation. Graduates from this program will be well prepared for careers in a wide range of industries including: traditional manufacturers, primary materials producers, and high-tech manufacturing (including defense, aerospace, and biomedical).

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
CHEM 1515	General Chemistry 1	4
ENGL 1550	Writing 1	3
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
MATH 1571	Calculus 1	4
GER Elective (SPA)		3
<b>Semester Hours</b>		<b>17</b>

**Spring**

CMST 1545	Communication Foundations	3
ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
MECH 1560	Engineering Communication with CAD	2
PHYS 2610	General Physics 1	4
<b>Semester Hours</b>		<b>16</b>

**Year 2****Fall**

CEEN 2601	Statics	3
MATH 2673	Calculus 3	4
MECH 2606	Engineering Materials	3
PHYS 2611	General Physics 2	4
ISEN 3723	Manufacturing Processes	3
MFG 3723L	Manufacturing Processes Laboratory	1
<b>Semester Hours</b>		<b>18</b>

**Spring**

ECEN 2614	Basics of Electrical Engineering	3
ISEN 3716	Systems Analysis and Design	3
MATH 3705	Differential Equations	3
MECH 2603	Thermodynamics 1	3
MECH 2641	Dynamics	3
<b>Semester Hours</b>		<b>15</b>

**Year 3****Fall**

MFG 3771	Additive and Digital Manufacturing	3
ISEN 3724	Engineering Economy	3
ISEN 3710	Engineering Statistics	3
MECH 3720	Fluid Dynamics	3
MECH 3762	Design of Machine Elements	3
MECH 3762L	Design of Machine Elements Laboratory	1
<b>Semester Hours</b>		<b>16</b>

**Spring**

ISEN 3720	Statistical Quality Control	3
GER Elective (SPA)		2
GER Elective (SS)		3
GER Elective (SS)		3
<b>Semester Hours</b>		<b>11</b>

**Year 4****Fall**

GER Elective (AH)		3
PHIL 2625	Introduction to Professional Ethics	3
MFG 4823	Manufacturing Processes 2	3
MFG 4823L	Manufacturing Processes 2 Laboratory	1
MFG 4871	Stress Plasticity and Deformation with FEA for Manufacturing	3
MFG 4861	Design for Manufacturability	3
<b>Semester Hours</b>		<b>16</b>

**Spring**

GER Elective (AH)		3
ISEN 5823	Automation	3
MECH 5836	Fluid Power and Control	3
ENT 3700	Entrepreneurship New Venture Creation	3
MFG 4821	Manufacturing Capstone	3

MFG Technical Elective (select from list)

<b>Semester Hours</b>	<b>15</b>
<b>Total Semester Hours</b>	<b>124</b>

## Learning Outcomes

The goal of the B.E. in Manufacturing Engineering degree program at YSU is to provide our graduates with strong foundation of theoretical and applied skills equipping them for success to pursue careers in manufacturing or to continue on to advanced study in related field.

The learning objective for the major in Manufacturing Engineering include:

1. Students will demonstrate an understanding of the fundamentals of manufacturing engineering, including significant elements from Mechanical Engineering, Industrial Engineering, and manufacturing process design and analysis.
2. Students will demonstrate independent and critical thinking.
3. Students will demonstrate competency in the use of modern engineering computational tools, including solid modeling and finite element analysis software.
4. Students will be able to acquire and interpret experimental data using appropriate instrumentation, sensing, data acquisition, and computational tools.
5. Students will demonstrate the ability to effectively communicate information orally and in writing.

## Department of Physics and Astronomy

Department of Physics and Astronomy

Room 2023 Ward Beecher Science Hall

Youngstown State University, Youngstown, Ohio 44555

(330) 941-3616 Fax: (330) 941-2131

W. Gregg Sturuss, Chair (wgsturuss@ysu.edu)

Welcome to the Department of Physics and Astronomy at YSU! We are proud of the unique opportunities we provide for our students. We are dedicated to the idea that students learn best by doing the activities considered to be the work of physicists and astronomers. Our Ward Beecher Planetarium sports a 40-foot projection dome, a Chronos GOTO Star Projector, and a SciDome HB full-dome digital projector, all of which are maintained and operated by our students. Our physics students also have access to state-of-the-art research equipment in our research labs. This equipment includes an atomic force microscope and an x-ray photoemission spectrometer for surface studies; a photolithography semiconductor mask aligner; magnetron sputtering deposition system and a HeCd laser photoluminescence spectrometer for developing and testing new semiconductor materials and devices; and a Vibrant OPOTek optical parametric oscillator and several pulsed YAG lasers (including a 20-picosecond pulse laser soon to arrive) for non-linear optics studies of layered polymer materials. The astronomy research students learn to use the latest data analysis tools and work with imaging data from telescopes around the world. Furthermore, the department has an endowment specifically for use to pay students who work as assistants in our research labs. We strive to include students in all our research projects and our planetarium shows, and we are happy to discuss these opportunities with interested students.

## Departmental Mission Statement

The Department of Physics & Astronomy strives to provide a high quality educational experience for its majors by involving undergraduate students in significant research activities to embody its philosophy of teaching through

research; to continue and expand the research footprint of the Department and the University; to serve the undergraduate population by offering challenging and essential course work; and to establish connections between the public and the scientific community and between the public and the University through outreach programs.

Courses are organized with the following aims:

- To provide well-rounded training in physics and astronomy for those needing it for graduate study, industry, or for secondary school teaching.
- To provide basic training for engineering and pre-professional students.
- To acquaint the nonspecializing student with scientific methods and with the place of physics and astronomy in the modern world.

The program curricula, four-year plan, and minimum requirements for the degrees of Bachelor of Arts and Bachelor of Science with a major in physics and a Bachelor of Science degree with a combined major in physics and astronomy are available through the links under the *Programs of Study* tab. These degrees may be earned in eight semesters if students average 15 hours per semester.

## Degree Options

The BA degree program in physics is designed for students who are interested in fields that benefit from a strong background in physics or for students planning to terminate their education at the bachelor's degree level. The BS degree program in physics is designed for students who plan to pursue graduate studies in physics or technical positions in an industrial setting. The BS degree program with a combined physics and astronomy major is designed for students who plan to pursue graduate studies in astronomy or space science. For advising questions, please contact us at (330) 941-3616 or [wgsturru@ysu.edu](mailto:wgsturru@ysu.edu).

Students pursuing the BA degree must complete Foreign Language through the 2600 level.

A student desiring to teach physics or astronomy in secondary schools should consult the dean of the College of Education.

Students are urged to come to the department office early in their first year for advising by the department chair.

For more information, visit the **Department of Physics and Astronomy**.

### Chair

**William Gregg Sturru**, Ph.D., Professor, Chair

### Professor

**Snjezana Balaz**, Ph.D., Assistant Professor

**Michael J. Crescimanno**, Ph.D., Professor

**Patrick R. Durrell**, Ph.D., Professor

**John J. Feldmeier**, Ph.D., Associate Professor

**Tom Nelson Oder**, Ph.D., Professor

**Donald Priour**, Ph.D., Assistant Professor

## Majors

- BS in Physics with a Minor in Mathematics (p. 566)
- BA in Physics with a Minor in Mathematics (p. 565)
- BS with a Combined Major in Physics and Astronomy and a Minor in Mathematics (p. 567)

## Minors

- Physics Minor (p. 568)
- Astronomy Minor (p. 568)

## Physics

### PHYS 1500 Conceptual Physics 3 s.h.

A conceptual treatment of selected theories and laws of classical and modern physics and their application to the understanding of natural phenomena. The evolution of these laws from hypotheses to functional relationships examined in a historical context. Not applicable to the major in Physics or to the combined major in Physics and Astronomy.

**Gen Ed:** Natural Science.

### PHYS 1500L Conceptual Physics Laboratory 1 s.h.

Experimental work designed to supplement PHYS 1500. Three hours per week.

**Prereq. or concurrent:** PHYS 1500.

### PHYS 1501 Fundamentals of Physics 1 4 s.h.

Topics include kinematics, forces, energy, momentum, rotational kinematics, torque, angular momentum, simple harmonic motion, and mechanical waves. Not recommended for mathematics, chemistry, physics, or engineering majors. **Prereq.:** C or better in MATH 1507 or MATH 1510 and MATH 1511, or readiness for MATH 1571 or equivalent, or at least level 40 on the Mathematics Placement Test.

**Gen Ed:** Natural Science.

### PHYS 1501L Fundamentals of Physics Laboratory 1 1 s.h.

Experimental work designed to supplement the PHYS 1501, PHYS 1502 sequence. Three hours per week.

**Prereq. or concurrent:** PHYS 1501.

### PHYS 1501R Fundamentals of Physics 1 Recitation 1 s.h.

Discussion and problem solving based on current material in PHYS 1501.

**Concurrent with:** PHYS 1501.

### PHYS 1502 Fundamentals of Physics 2 3 s.h.

Study of electricity, magnetism, and light. Topics include electric charge, electric forces and fields, electric potential, capacitance and resistance in direct current circuits, basic circuit analysis, magnetic forces and fields, induced emf, inductance, reflections, refraction, geometric optics as applied to lenses and mirrors, interference, and diffraction.

**Prereq.:** PHYS 1501 or equivalent.

**Gen Ed:** Natural Science.

### PHYS 1502L Fundamentals of Physics Laboratory 2 1 s.h.

Experimental work designed to supplement the PHYS 1501, PHYS 1502 sequence. Three hours per week.

**Prereq. or concurrent:** PHYS 1502.

### PHYS 1506 Physics for Health Care 3 s.h.

The basic laws of physics applied to various biological and physiological problems. Designed for majors in the allied health fields, e.g., Respiratory care. Not applicable to the major in Physics or to the combined major in Physics and Astronomy.

### PHYS 1507 Energy and the Environment 3 s.h.

Broad survey of the origin and distribution of the various forms of energy found in nature. Examination of the physical laws governing society's use of energy and environmental consequences resulting therefrom. Not applicable to the major in Physics or to the combined major in Physics and Astronomy.

### PHYS 1520H Honors Perspectives in Physics 3 s.h.

Introduction to past and recent ideas in physics with specific emphasis on their impact on historical and contemporary thought. The treatment, largely non-mathematical, is enhanced by selected readings suitable for the beginning honors student in any field. Not applicable to the major in Physics or to the combined major in Physics and Astronomy.

**Prereq.:** Admission to the Honors Program or permission of instructor and Director of Honors.

**PHYS 2601 General Physics for Applied Medical Studies 1 4 s.h.**

Description and analysis of motion including kinematics and dynamics of translation and rotation; analysis of equilibrium, energy, and momentum of objects; gravity; mechanical oscillations and waves. This course is designed primarily for students enrolled in the NEOMED-YSU program or in pre-medical curricula.

**Prereq.:** MATH 1507 and MATH 1508 or equivalent.

**Prereq. or concurrent:** MATH 1571, MATH 1581H, or MATH 1585H.

**Gen Ed:** Natural Science.

**PHYS 2602 General Physics for Applied Medical Studies 2 4 s.h.**

Description and analysis of electrical and magnetic effects; geometric and physical optics and the wave nature of light; introduction to atomic physics, quantum mechanics, nuclear structure and radiation.

**Prereq.:** PHYS 2601.

**Gen Ed:** Natural Science.

**PHYS 2607 Physical Science for Middle and Secondary Education 4 s.h.**

Selected topics in physical science appropriate to the middle- and secondary-level curriculum. Emphasis on diverse hands-on classroom activities, and multiple approaches to communicating basic concepts in physical science. Topics include simple machines, light and sound, batteries and bulbs, physical properties of solids, liquids and gases.

**Prereq.:** MATH 1501 or at least level 3 on the Mathematics Placement Test and admission to BCOE upper-division status.

**Gen Ed:** Natural Science.

**PHYS 2608 Sound 3 s.h.**

The physical principles accounting for the production, propagation, and perception of sound waves. The relevance of these principles to phenomena ranging from hearing to the operation of various musical instruments. Introduction to auditorium acoustics. This course is designed for Music majors. Not applicable to the Physics major or to the combined Astronomy and Physics major.

**Gen Ed:** Natural Science.

**PHYS 2610 General Physics 1 4 s.h.**

A course in mechanics; the kinematics and dynamics of masses in translation and rotation; Newton's Laws; gravity; the conservation laws of energy and momentum; simple harmonic motion and introduction to wave motion and sound.

**Prereq.:** High school physics or PHYS 1501.

**Prereq. or concurrent:** MATH 1571.

**Gen Ed:** Natural Science.

**PHYS 2610L General Physics laboratory 1 1 s.h.**

Experimental work designed to supplement the PHYS 2610, 2611 sequence. Three hours per week.

**Prereq. or concurrent:** PHYS 2610 or PHYS 2601 for PHYS 2610L.

**PHYS 2610R General Physics 1 Recitation 1 s.h.**

Discussion and problem solving based on current material in PHYS 2610.

**Concurrent with:** PHYS 2610.

**PHYS 2611 General Physics 2 4 s.h.**

Study of electric and magnetic fields and their effects; introduction to electric circuits; light as an electromagnetic wave; introduction to geometrical and physical optics.

**Prereq.:** PHYS 2610.

**Prereq. or concurrent:** MATH 1572.

**Gen Ed:** Natural Science.

**PHYS 2611L General Physics laboratory 2 1 s.h.**

Experimental work designed to supplement the PHYS 2610, 2611 sequence. Three hours per week.

**Prereq. or concurrent:** PHYS 2611 or PHYS 2602.

**PHYS 3703 Classical Mechanics and Dynamics 4 s.h.**

Kinematics and dynamics of particles and rigid bodies in inertial and non-inertial reference systems. Linear and non-linear oscillations and oscillating systems. Conditions for chaotic motion. Gravitational and central forces. Lagrangian and Hamiltonian mechanics.

**Prereq.:** PHYS 2611 or ECEN 2633 and prerequisite or concurrent with MATH 3705.

**PHYS 3704 Modern Physics 4 s.h.**

Special Theory of Relativity. Quantum phenomena related to electromagnetic radiation and material particles. The Bohr model of the hydrogen atom; the Schroedinger equation; the Heisenberg Uncertainty Principle. Wave mechanics of single particles in one-dimensional potentials. Selected topics in atomic, nuclear and condensed matter physics.

**Prereq.:** PHYS 2611 or ECEN 2633 and prerequisite or concurrent with MATH 2673.

**PHYS 3704L Modern Physics Laboratory 1 s.h.**

Experimental work designed to supplement PHYS 3704. Three hours per week.

**Prereq. or concurrent:** PHYS 3704.

**PHYS 3705 Thermodynamics and Classical Statistical Dynamics 3 s.h.**

Principles and theorems of thermodynamics derived from the observable macroscopic properties related to temperature, heat, and the underlying statistical origins of thermodynamic processes. Includes the laws of thermodynamics, entropy, state functions, differential equations of state, Maxwell relations, and Maxwell-Boltzmann statistics.

**Prereq.:** PHYS 2611 or ECEN 2633 and prerequisite or concurrent with MATH 2673.

**PHYS 3705L Thermodynamics and Classical Statistical Mechanics Laboratory 1 s.h.**

Experimental work designed to supplement PHYS 3705. Three hours per week.

**Prereq. or concurrent:** PHYS 3705.

**PHYS 3722 Advanced Optics and Light 3 s.h.**

Sources and detection of light; intermediate geometrical and physical optics, including dispersion, scattering, absorption, polarization, coherence, interference, Fresnel and Fraunhofer diffraction.

**Prereq.:** MATH 2673 and either PHYS 2611 or ECEN 2633.

**PHYS 3722L Advanced Optics Laboratory 1 s.h.**

Experimental work designed to supplement PHYS 3722. Three hours per week.

**Prereq. or concurrent:** PHYS 3722.

**PHYS 3730 Electronic Instrumentation 3 s.h.**

Laboratory-based course in digital and analog electronics. Topics include AC and DC circuit theory; digital and analog electronics including filters, op amps, counters, digital integrated logic circuits, and A/D and D/A conversion; computer interfacing.

**Prereq.:** PHYS 2611.

**PHYS 3741 Electromagnetic Field Theory 1 3 s.h.**

Intermediate theory of electric and magnetic fields. Topics include electric field, scalar potential, techniques for calculating scalar potential (method of images, Laplace's and Poisson's equations, multipole expansion, Green's Function approach), dielectrics and polarization, Maxwell's equations and their application to the propagation of electromagnetic waves including reflection, refraction, transmission, and absorption; guided waves, retarded potentials, radiating systems, special relativity. Must be taken in sequence, before PHYS 3742.

**Prereq.:** MATH 3705 and either PHYS 2611 or ECEN 2633.

**PHYS 3742 Electromagnetic Field Theory 2 3 s.h.**

Intermediate theory of electric and magnetic fields. Topics include electric field, scalar potential, techniques for calculating scalar potential (method of images, Laplace's and Poisson's equations, multipole expansion, Green's Function approach), dielectrics and polarization, Maxwell's equations and their application to the propagation of electromagnetic waves including reflection, refraction, transmission, and absorption; guided waves, retarded potentials, radiating systems, special relativity.

**Prereq.:** PHYS 3741.

**PHYS 3750 Mathematical Physics 3 s.h.**

The mathematics techniques required in the study of classical, statistical, and quantum mechanics, and field theory.

**Prereq.:** MATH 3705 and either PHYS 2611 or ECEN 2633.

**PHYS 4805 Undergraduate Physics Research 3 s.h.**

Research conducted under the direction of a faculty member. The grading is Traditional/PR.

**Prereq.:** PHYS 3703 and PHYS 3704.

**Gen Ed:** Capstone.

**PHYS 5810 Quantum Mechanics and Quantum Statistical Mechanics 1 3 s.h.**

The postulates of wave mechanics, Matrix mechanics, angular momentum coupling, scattering, perturbation theory, intrinsic spin, emission and absorption of radiation. Fermi-Dirac and Bose-Einstein statistics with applications in quantum theory. Must be taken in sequence before PHYS 5811.

**Prereq.:** PHYS 3703 and PHYS 3704 and MATH 3705.

**PHYS 5811 Quantum Mechanics and Quantum Statistical Mechanics 2 3 s.h.**

The postulates of wave mechanics, Matrix mechanics, angular momentum coupling, scattering, perturbation theory, intrinsic spin, emission and absorption of radiation. Fermi-Dirac and Bose-Einstein statistics with applications in quantum theory. Must be taken in sequence.

**Prereq.:** PHYS 5810.

**PHYS 5823 Laser Physics and Photonics 3 s.h.**

Emission and absorption of radiation, including stimulated emission. Optical cavities and wave guides. Introduction to lasers. Modulation and detection of light. Applications of lasers to information processing and other technologies. Introduction to nonlinear optical and opto-electronic phenomena and nonlinear optical materials.

**Prereq.:** PHYS 3722.

**PHYS 5826 Nuclear Physics 3 s.h.**

General properties and behavior of the nucleus; nuclear models; nuclear reactions; radioactivity and decay processes; accelerators; current topics; elementary particles. Laboratory experiments. Prereq. PHYS 3704, PHYS 3704L, and MATH 3705.

**PHYS 5830 Condensed Matter Physics 3 s.h.**

Selected topics in condensed matter physics: mechanical, thermal, electrical, and magnetic properties of amorphous and crystalline materials; crystal structures.

**Prereq.:** PHYS 3704.

**PHYS 5835 Spectroscopy 3 s.h.**

Treatment of atomic, molecular, and nuclear structure based on the analysis of electromagnetic and other spectra.

**Prereq.:** PHYS 3704.

**PHYS 5835L Spectroscopy Laboratory 1 s.h.**

Experimental work designed to supplement PHYS 5835. Three hours per week.

**Prereq. or concurrent:** PHYS 5835.

**PHYS 5850 Special Topics in Physics 2-4 s.h.**

The study of a standard topic at greater depth, of the development of a correlated background for areas of physical knowledge, or the physical and educational experimentation necessary to develop new physics courses. May be repeated twice.

**Prereq.:** Senior standing in Physics, Electrical Engineering, or Education.

**PHYS 5850F Special Topics in Physics Gravity and Curvature 2-4 s.h.**

The study of a standard topic at greater depth, of the development of a correlated background for areas of physical knowledge, or the physical and educational experimentation necessary to develop new physics courses. May be repeated twice.

**Prereq.:** Senior standing in Physics, Electrical Engineering, or Education.

**PHYS 5890 Physics and Astronomy for Educators 1-4 s.h.**

Intensive study of selected topics of current interest in Physics education. Not applicable to the major in Physics or the combined Astronomy and Physics major. May be repeated for different topics.

**Prereq.:** Admission to upper-division status in the College of Education or to the Graduate School.

## Astronomy

**ASTR 1504 Descriptive Astronomy 3 s.h.**

Scientific method, introduction to modern understanding of the universe, astronomy and society, humanity's place in the universe. Astronomical observing methods, the solar system, stars and star systems, galaxies, cosmology. Recent astronomical discoveries.

**Gen Ed:** Natural Science.

**ASTR 1504L Astronomy Laboratory 1 s.h.**

Telescope and Planetarium laboratory work designed to supplement ASTR 1504. Measurement techniques and deductive methods to determine distance and size of astronomical objects. Three hours per week.

**Prereq. or concurrent:** ASTR 1504.

**ASTR 2609 Moon and Planets 3 s.h.**

A detailed discussion of the moon and planets, with particular emphasis on the geology of the moon.

**Prereq.:** ASTR 1504 or GEOL 1505.

**ASTR 3711 Astrophysics 1 3 s.h.**

The application of physical principles to the study of the stars and planets; stellar distances and dimensions; stellar spectra and chemical composition; nuclear reactions and evolution of stars; the Milky Way and other galaxies; cosmology.

**Prereq.:** PHYS 2611 and MATH 2673.

**ASTR 3712 Astrophysics 2 3 s.h.**

The application of physical principles to the study of the stars and planets; stellar distances and dimensions; stellar spectra and chemical composition; nuclear reactions and evolution of stars; the Milky Way and other galaxies; cosmology.

**Prereq.:** PHYS 2611 and MATH 2673.

**ASTR 4811 Observational Astronomy 1 3 s.h.**

Photoelectric photometry, photographic and CCD imaging techniques, spectroscopy, methods of data reduction. Some night observatory work included.

**Prereq.:** PHYS 2611 and MATH 2673.

**ASTR 4812 Observational Astronomy 2 3 s.h.**

Photoelectric photometry, photographic and CCD imaging techniques, spectroscopy, methods of data reduction. Some night observatory work included.

**Prereq.:** PHYS 2611 and MATH 2673.

**ASTR 4815 Undergraduate Astronomy Research 3 s.h.**

Research conducted under the direction of a faculty member. The grading is Traditional/PR.

**Prereq.:** PHYS 3703 and PHYS 3704.

**Gen Ed:** Capstone.

## Learning Outcomes

The Department of Physics and Astronomy helps students in the departmental programs develop skills to acquire and demonstrate knowledge in classical mechanics, modern physics, electricity and magnetism, thermodynamics, quantum mechanics, and astrophysics. The learning outcomes for the BA Program in Physics are:

- Students will learn to model physical systems and interpret experimental and theoretical results.
- Students will learn how to measure the physical properties of systems using a variety of test equipment and defend the results of their measurements using the associated accuracy and precision of these measurements.
- Students will learn to apply the concepts of classical physics, modern physics, thermodynamics, and electrostatics to solve problems and predict numerical results.

In addition to the learning outcomes for the BA program in physics, students of the BS program in physics will further learn to apply the concepts of

electrodynamics and quantum mechanics to solve problems and predict numerical results.

In addition to the learning outcomes for the BA program in physics, students of the BS program in physics and astronomy will learn to apply the concepts of astrophysics to solve problems and predict numeric results.

## Bachelor of Arts in Physics with a Minor in Mathematics

### Minimum requirements for the B.A. degree in Physics with a minor in mathematics

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies 9		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics requirement included in minor		
Arts and Humanities 6		
Natural Sciences included in major		
Social Science 6		
Social and Personal Awareness 6		
General Education Elective / First-Year Experience 3		
<b>Major Requirements</b>		
Physics Courses:		
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
PHYS 3703	Classical Mechanics and Dynamics	4
PHYS 3704 & 3704L	Modern Physics and Modern Physics Laboratory	5
PHYS 3705 & 3705L	Thermodynamics and Classical Statistical Dynamics and Thermodynamics and Classical Statistical Mechanics Laboratory	4
PHYS 3741	Electromagnetic Field Theory 1	3
PHYS 4805	Undergraduate Physics Research	3
Physics upper division Elective 3		
Mathematics Courses:		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
Minor Course:		
One additional 3 s.h. upper division elective in mathematics is required for the mathematics minor. 3		
Other courses:		
FNLG 1550	Elementary Foreign Language	4
FNLG 2600	Intermediate Foreign Language	4
CHEM 1515	General Chemistry 1	4
CHEM 1515L	General Chemistry 1 Laboratory	
CHEM 1516	General Chemistry 2	4
CHEM 1516L	General Chemistry 2 Laboratory	
Electives:		

20 additional hours of upper division electives and 4 hours of electives at any level are required 24

<b>Total Semester Hours</b>		<b>120</b>
Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1 (P, NS)	5
ENGL 1550	Writing 1	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory (NS)	4
MATH 1571	Calculus 1 (P)	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2 (P, NS)	5
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory (P, NS)	4
MATH 1572	Calculus 2 (P)	4
First-Year Experience Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
PHYS 3704 & 3704L	Modern Physics and Modern Physics Laboratory (P)	5
MATH 2673	Calculus 3 (P)	4
FNLG 1550	Elementary Foreign Language	4
ENGL 1551	Writing 2	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
PHYS 3705 & 3705L	Thermodynamics and Classical Statistical Dynamics and Thermodynamics and Classical Statistical Mechanics Laboratory (P)	4
MATH 3705	Differential Equations (P)	3
FNLG 2600	Intermediate Foreign Language	4
Arts & Humanities GER Domain		3
<b>Semester Hours</b>		<b>14</b>
<b>Year 3</b>		
<b>Fall</b>		
PHYS 3703	Classical Mechanics and Dynamics (P)	4
PHYS 3741	Electromagnetic Field Theory 1 (P)	3
Social Sciences GER Domain		3
Upper Division Math (P)		3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
Arts & Humanities GER Domain		3
Elective		4
Physics upper division Elective		3
Social Sciences GER Domain		3
<b>Semester Hours</b>		<b>13</b>
<b>Year 4</b>		
<b>Fall</b>		
PHYS 4805	Undergraduate Physics Research (Capstone, P)	3
Social & Personal Awareness GER Domain		3

Electives (Upper Division)	8
<b>Semester Hours</b>	<b>14</b>
<b>Spring</b>	
Social & Personal Awareness GER Domain	3
Electives (Upper Division)	12
<b>Semester Hours</b>	<b>15</b>
<b>Total Semester Hours</b>	<b>120</b>

## Bachelor of Science in Physics with a Minor in Mathematics

### Minimum requirements for the B.S. in Physics with a minor in mathematics

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		
ENGL 1550	Writing 1	9
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement - included in minor		
Arts and Humanities		6
Natural Sciences - included in major		
Social Science		6
Social and Personal Awareness		6
General Education Elective / First-Year Experience		3
<b>Major Requirements</b>		
Physics Courses:		
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
PHYS 3703	Classical Mechanics and Dynamics	4
PHYS 3704 & 3704L	Modern Physics and Modern Physics Laboratory	5
PHYS 3705 & 3705L	Thermodynamics and Classical Statistical Dynamics and Thermodynamics and Classical Statistical Mechanics Laboratory	4
PHYS 3741	Electromagnetic Field Theory 1	3
PHYS 4805	Undergraduate Physics Research	3
PHYS 3742	Electromagnetic Field Theory 2	3
PHYS 3750	Mathematical Physics	3
PHYS 5810	Quantum Mechanics and Quantum Statistical Mechanics 1	3
PHYS 5811	Quantum Mechanics and Quantum Statistical Mechanics 2	3
Mathematics Courses:		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
One additional 3 s.h. upper division elective in mathematics is required for the mathematics minor.		3
Other Courses:		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4

ECEN 2614	Basics of Electrical Engineering	3
Select one of the following programming courses		
CIS 3735	UNIX Environment	3-4
CSIS 2610	Programming and Problem-Solving	
Electives:		
If CIS 3735 is selected, 8 hours of upper division electives and 9 hours of any level electives; OR if CSIS 2610 is selected, 11 hours of upper division electives and 5 hours of any level electives needed		
<b>Total Semester Hours</b>		<b>120</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1 (P, NS)	5
ENGL 1550	Writing 1	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory (NS)	4
MATH 1571	Calculus 1 (P)	4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2 (P, NS)	5
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory (P, NS)	4
First-Year Experience Course		
MATH 1572	Calculus 2 (P)	4
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
PHYS 3704 & 3704L	Modern Physics and Modern Physics Laboratory (P)	5
MATH 2673	Calculus 3 (P)	4
CSIS 2610 or CIS 3735	Programming and Problem-Solving or UNIX Environment	4-3
ENGL 1551	Writing 2	3
<b>Semester Hours</b>		<b>16-15</b>
<b>Spring</b>		
PHYS 3705 & 3705L	Thermodynamics and Classical Statistical Dynamics and Thermodynamics and Classical Statistical Mechanics Laboratory (P)	4
MATH 3705	Differential Equations (P)	3
Social & Personal Awareness GER Domain		
Arts & Humanities GER Domain		
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
PHYS 3703	Classical Mechanics and Dynamics (P)	4
PHYS 3741	Electromagnetic Field Theory 1 (P)	3
PHYS 3750	Mathematical Physics	3
Social Sciences GER Domain		
Arts & Humanities GER Domain		
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ECEN 2614	Basics of Electrical Engineering	3
PHYS 3742	Electromagnetic Field Theory 2 (P)	3

Math Elective (Upper Division)	3
Social Sciences GER Domain	3
<b>Semester Hours</b>	<b>12</b>
<b>Year 4</b>	
<b>Fall</b>	
PHYS 4805 Undergraduate Physics Research	3
PHYS 5810 Quantum Mechanics and Quantum Statistical Mechanics 1 (P)	3
Electives (Upper Division)	8
<b>Semester Hours</b>	<b>14</b>
<b>Spring</b>	
PHYS 5811 Quantum Mechanics and Quantum Statistical Mechanics 2 (P)	3
Social & Personal Awareness GER Domain	3
Elective (Upper Division if CSIS 2610; any level if CIS 3735)	3
Electives at any level: 5 hours if CSIS 2610; 6 hours if CIS 3735	5-6
<b>Semester Hours</b>	<b>14-15</b>
<b>Total Semester Hours</b>	<b>120</b>

## Bachelor of Science with a Combined Major in Physics and Astronomy and a Minor in Mathematics

### Minimum requirements for the BS with a combined major in physics and astronomy and a minor in mathematics

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies 9		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement - included in minor		
Arts and Humanities 6		
Natural Sciences - included in major		
Social Science 6		
Social and Personal Awareness 6		
General Education Elective / First-Year Experience 3		
<b>Major Requirements</b>		
Physics Courses:		
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
PHYS 3703	Classical Mechanics and Dynamics	4
PHYS 3704 & 3704L	Modern Physics and Modern Physics Laboratory	5
PHYS 3705 & 3705L	Thermodynamics and Classical Statistical Dynamics and Thermodynamics and Classical Statistical Mechanics Laboratory	4
PHYS 3741	Electromagnetic Field Theory 1	3
Select 6 s.h. of upper division physics courses. 6		
Astronomy Courses:		
ASTR 1504	Descriptive Astronomy	3
ASTR 2609	Moon and Planets	3

ASTR 3711	Astrophysics 1	3
ASTR 3712	Astrophysics 2	3
ASTR 4815	Undergraduate Astronomy Research	3
ASTR 4811	Observational Astronomy 1	3
ASTR 4812	Observational Astronomy 2	3
Mathematics Courses:		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
Minor Course:		
One additional 3 s.h. upper division elective in mathematics is required for the mathematics minor. 3		
Other Courses		
CHEM 1515	General Chemistry 1	4
CHEM 1515L	General Chemistry 1 Laboratory	0
CHEM 1516	General Chemistry 2	4
CHEM 1516L	General Chemistry 2 Laboratory	0
CSIS 2610	Programming and Problem-Solving	4
Elective courses needed: 5 hours of upper division and 2 hours of any level elective. 7		
<b>Total Semester Hours</b>		<b>120</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1 (P, NS)	5
ASTR 1504	Descriptive Astronomy (NS)	3
MATH 1571	Calculus 1 (P)	4
ENGL 1550	Writing 1	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ASTR 2609	Moon and Planets	3
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2 (P)	5
MATH 1572	Calculus 2 (P)	4
First-Year Experience Course 3		
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
PHYS 3704 & 3704L	Modern Physics and Modern Physics Laboratory (P)	5
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory (NS)	4
MATH 2673	Calculus 3 (P)	4
ENGL 1551	Writing 2	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory (P, NS)	4
MATH 3705	Differential Equations (P)	3
CMST 1545	Communication Foundations	3
CSIS 2610	Programming and Problem-Solving	4
<b>Semester Hours</b>		<b>14</b>
<b>Year 3</b>		
<b>Fall</b>		
PHYS 3703	Classical Mechanics and Dynamics (P)	4



PHYS 3741	Electromagnetic Field Theory 1 (P)	3
ASTR 3711	Astrophysics 1 (P)	3
Physics Elective (Upper Division)		3
Social Sciences GER Domain		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
PHYS 3705 & 3705L	Thermodynamics and Classical Statistical Dynamics and Thermodynamics and Classical Statistical Mechanics Laboratory (P)	4
Physics Elective (Upper Division)		3
ASTR 3712	Astrophysics 2 (P)	3
Arts & Humanities GER Domain		3
Social & Personal Awareness GER Domain		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
ASTR 4811	Observational Astronomy 1	3
ASTR 4815	Undergraduate Astronomy Research (Capstone)	3
Upper Division elective		3
Arts & Humanities Elective GER Domain		3
Social Sciences Elective GER Domain		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ASTR 4812	Observational Astronomy 2 (P)	3
Math Elective (Upper Division)		3
Electives (Upper Division)		2
Electives		2
Social & Personal Awareness GER Domain		3
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>120</b>

## Minor in Astronomy

COURSE	TITLE	S.H.
ASTR 2609	Moon and Planets	3
Students must complete ASTR 1504 or GEOL 1505 as prerequisite for ASTR 2609		
The following four courses require PHYS 2611 and MATH 2673 as prerequisites:		
ASTR 3711	Astrophysics 1	3
ASTR 3712	Astrophysics 2	3
ASTR 4811	Observational Astronomy 1	3
ASTR 4812	Observational Astronomy 2	3
Prerequisites courses PHYS 3703 and PHYS 3704 are required for ASTR 4815		
ASTR 4815	Undergraduate Astronomy Research	3
<b>Total Semester Hours</b>		<b>18</b>

## Minor in Physics

COURSE	TITLE	S.H.
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1 <sup>1</sup>	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2 <sup>1</sup>	5

Select 8 s.h. of upper division physics electives.	8
<b>Total Semester Hours</b>	<b>18</b>

<sup>1</sup> Upper division elective hours may be substituted for PHYS 2610L General Physics laboratory 1 and/or PHYS 2611L General Physics laboratory 2 for students majoring in engineering or a natural science.

## The Warren P. Williamson, Jr. College of Business Administration

*Betty Jo Licata, Dean*

### Mission Statement

"Excellence through Engagement"

The mission of the WCBA is to develop successful professionals and leaders for business and society.

We emphasize:

- A student-centered, teaching/learning process that focuses on the application of theory to practice and supports the intellectual and professional development of our students.
- Faculty scholarship that contributes to management practice, advances the discipline, and enhances the teaching-learning process.
- Contributions by our students, faculty, and staff that support the university, profession, and the economic development of the region.

### BSBA Learning Outcomes

1. Recognize, analyze, and solve business problems.
  - Students will demonstrate the ability to recognize, analyze, and solve problems in the fields of accounting, finance, management, and marketing.
  - Students will be able to recognize and understand global business issues; and, they will be able to apply this understanding in solving business problems with multinational dimensions.
  - Students will be able to apply an interdisciplinary approach to solving problems.
2. Demonstrate effective oral and written communication skills.
  - Students will be able to deliver effective oral business presentations, using audio or visual technology where applicable.
  - Students will be able to write clear and informative business reports, including executive summaries, case analyses, and reports involving persuasive argumentation.
3. Identify and assess ethical and social responsibility issues.
  - Students will be able to identify ethical issues in business and respond to the resulting dilemmas.
  - Students demonstrate literacy and understanding of the legal and social responsibility obligations at the organizational and individual levels.
4. Demonstrate professional behavior in business situations.
  - Students will understand and exhibit professional conduct in classroom, job search, and workplace environments.
  - Students will have a basic understanding of conflict resolution methods.
  - Students will demonstrate knowledge of factors that contribute to the effective performance of leaders and teams.

### Accreditation

The Williamson College of Business Administration's associate, bachelor's, and master's programs are accredited by AACSB International - The Association

to Advance Collegiate Schools of Business (<http://www.aacsb.edu/accreditation>), the premier accrediting agency for programs in business administration. Fewer than 5% of business schools worldwide have earned AACSB accreditation.

## Facilities

The Williamson College of Business Administration moved into a new 110,000 square-foot, \$34.3 million building in fall 2010. The College's new home is a LEED-certified state-of-the-art facility that provides enhanced classrooms and learning spaces for students and provides a variety of places for students to study and meet with team members, friends, and the business community. The building includes:

- WCBA Student Services Center (<http://www.yсу.edu/academics/williamson-college-business-administration/advisement>)
- Center for Career Management (<http://www.yсу.edu/academics/williamson-college-business-administration/internships>)
- Faculty Offices
- 3D Printing Lab
- Professional Sales and Business Communication Lab
- Financial Services Lab
- Gallery of Industry, Business and Entrepreneurship
- 14 Classrooms
- Team Rooms
- Conference Center and Executive Board Room
- 200-seat Auditorium
- Ohio Small Business Development Center, Williamson Center for International Business, Center for Nonprofit Leadership and the Center for Entrepreneurship

Designed to link the campus with the downtown community, the new building is a valuable resource for WCBA students and the regional community.

## Bachelor of Science in Business Administration Majors

The Williamson College of Business Administration offers courses leading to the Bachelor of Science in Business Administration (BSBA) degree, with majors in:

- Accounting (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/school-accounting-finance/bsba-in-accounting>)
- Advertising and Public Relations (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-marketing/advertising-public-relations>)
- Business Administration (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-management/business-administration>)
- Business Economics (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/business-economics>)
- Finance: Financial Management Track (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/school-accounting-finance/bsba-finance-financial-management-track>)
- Finance: Certified Financial Planner Track (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/school-accounting-finance/bsba-finance-certified-financial-planning-track>)
- Human Resource Management (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-management/human-resource-management>)
- Information and Supply Chain Management (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-management/management-information-systems>)
- International Business (ICP) (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/bsba-icp>)

- Marketing: Marketing Management Track (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-marketing/marketing-management-track>)
- Marketing: Sales Management Track (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-marketing/marketing-sales-management-track>)

## wcba minors

- Accounting (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/school-accounting-finance/accounting-minor>)
- Advertising/Public Relations (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-marketing/advertising-public-relations-minor>)
- Business Administration (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/bsba-icp/business-minor-non-business-major>) (non-business Majors)
- Employee Relations (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-management/employee-relations-minor>)
- Entrepreneurship (p. 601)
- Finance (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/school-accounting-finance/finance-minor>)
- International Business (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/bsba-icp/international-business-minor>)
- Marketing (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-marketing/marketing-minor>)
- Management (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-management/management-minor>)
- Management Information Systems (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-management/management-information-systems-minor>)
- Nonprofit Leadership (p. 602)

## wcba certificate program

- Enterprise Resource Planning (ERP) (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-management/erp-certificate>)
- Entrepreneurship (p. 601)
- Leadership (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-management-leadership-certificate>)
- Nonprofit Leadership (p. 602)

## Associate Degrees

- Associate in Arts in Business Administration (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/wcba-associate-degrees/aa-business-administration>)
- Associate in Technical Study (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/wcba-associate-degrees/ats-business-technology>)

## Graduate Degrees

- Master of Business Administration (MBA) (<http://www.yсу.edu/academics/williamson-college-business-administration/business-administration-mba>)
- Master of Accountancy (MAcc) (<http://www.yсу.edu/academics/williamson-college-business-administration/master-accountancy>)

For more information, visit **The Warren P. Williamson, Jr. College of Business Administration** (<http://www.yzu.edu/academics/williamson-college-business-administration>).

## Bachelor's Degree Program-BSBA

### BSBA REQUIREMENTS

#### Incoming Students

##### Pre-Major

Incoming freshmen are admitted "Pre" majors (Pre-Accounting, Pre-Advertising/Public Relations, Pre-Business Economics, Pre-Finance, Pre-Human Resource Management, Pre-Information and Supply Chain Management, Pre-Marketing, Pre-Business Management). Once students have completed the Pre-Business requirements, including earning a 2.5 grade point average, they submit a request to change their major from Pre-Business to their desired major. This request typically takes place at the end of a student's sophomore year.

##### Direct Admission

Students with a minimum 3.5 high school GPA and a minimum ACT score of 25 or SAT score of 1150 are admitted directly into the business major of their choice and are encouraged to apply for the WCBA Business Leaders program (<http://www.yzu.edu/academics/williamson-college-business-administration/student-organizations-and-experiences>).

##### Transfer Students/Change of Major

Students with fewer than 32 semester hours will be admitted as pre-business if they have: completed ENGL 1550 Writing 1 (C), are eligible for MATH 1507 Intermediate Algebra and have a minimum college GPA of 2.25.

Transfer students with 32 or more semester hours will be admitted as pre-business if they have a minimum college GPA of 2.5 or higher.

#### Pre-Business Requirements

Most students pursuing a BSBA degree are admitted to YSU as a pre-business major. After successful completion of the requirements below and earning a minimum 2.5 overall grade point average, a student will complete an online WCBA change of major request form to move from pre-business to the desired major. At this time, a student will be eligible to begin taking upper division business courses.

COURSE	TITLE	S.H.
<b>General Education Courses</b> <sup>1</sup>		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
PHIL 2628	Business Ethics	
CMST 1545	Communication Foundations	
<b>BUSINESS TOOL COURSES</b>		
Business Tool courses must be completed with the grade of a "C" or higher and CANNOT be taken credit/no credit.		
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ENGL 3742	Business Writing	3
ECON 3790	Statistics for Business and Economics	5

<sup>1</sup> Additional General Education courses are necessary for degree.

### Business Core

COURSE	TITLE	S.H.
<b>BUSINESS CORE REQUIREMENTS</b>		
Upper Level Business courses required for all BSBA degrees.		
To enroll in Business Core courses students MUST:		
Successfully complete ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses.		
Have a minimum 2.5 overall GPA.		
Business Core courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems <sup>not required for Accounting majors</sup>	3
MGT 3789	Operations Management	3
MGT 4850	Strategic Management and Leadership <sup>Graduating Seniors Only. Prerequisites: FIN 3720 (C), MKTG 3702 (C), MKTG 3703 (3), MGT 3725 (C) and a minimum 2.5 overall GPA.</sup>	3

#### Major Requirements

Major requirements differ based upon the student's field of study. They will consist of 30-42 credit hours of upper level business courses including specific courses related to the major, major related electives and business electives. An upper division business course is a 3000-level or higher course from the following subjects: BUS, ADV, ACCT, FIN, ENT, MGT, and MKTG. Students can use up to six credit hours of ECON upper level courses as business electives (with the exception of Business Economics majors, who will have additional ECON required courses). Upper level business courses must be successfully completed with the grade of a "C" or higher and cannot be taken credit/no credit.

#### BSBA Graduation Requirements

The student has the responsibility for making sure that all graduation requirements for the degree are satisfied. For the Bachelor of Science in Business Administration, the requirements include:

- A minimum of 120-122 semester hours.
- Completion of all General Education and BSBA requirements.
- The grade of a C or higher in ENGL 1551, MATH 1552, Business Tool courses, Business Core Courses and Major Courses. These courses cannot be taken credit/no credit.
- Minimum cumulative GPA of 2.5.
- Course-level requirements (completion of sixty (60) semester hours of courses must be completed at the 2000 level or higher, of which forty-eight (48) semester hours must be at the 3000 level or higher.
- At least 50 percent (62 hours) of the total degree requirements must be taken in non-business courses. Up to nine hours of economics courses can be counted as non-business.
- Residency requirement. (<http://catalog.yzu.edu/undergraduate/general-information/academic-policies-procedures/graduation-requirements>)
- Application for graduation (<https://cms.yzu.edu/administrative-offices/registrar/application-graduation>).

A graduation evaluation request must be submitted no later than two semesters prior to a student's intended graduation. It is a student's responsibility to request the evaluation through the student portal system.

The Request for Graduation Evaluation can be submitted via the MyYSU Portal by clicking on "Access My Student Information" then "Graduation Evaluation Request".

ROTC students are permitted specific modifications of the requirements as explained in the Academic Policies and Procedures section.

## Professional Development

Business majors are encouraged to develop a strong portfolio of knowledge, skills, and experiences that position them for success in college and in their careers. A wide array of opportunities are available that enable students to gain career related experience, develop leadership skills, and acquire professional competencies.

## Internships/Co-Operative Education

WCBA students gain career-related work experience through internships and cooperative education experiences. These experiences provide students with professional level experience related to their chosen major. In addition to gaining valuable experience, students can earn academic credit for up to two different internships. Internships for which students earn academic credit must be paid. Internships can be part-time or full-time, either fall, spring, or summer, and can be located anywhere in the world. The WCBA Center for Career Management offers assistance to both students and employers interested in participating in the Internship and Cooperative Education Program. Internships are offered in accounting, advertising/public relations, finance, management, marketing, sales, international trade, entrepreneurship, and nonprofit leadership.

## Student Leadership Opportunities

Student chapters of national professional organizations provide an excellent means for students to develop leadership skills, network with professionals in their chosen career fields, and increase their exposure to the business world.

Professional Student Organizations in the Williamson College of Business Administration include:

- Advertising Club
- American Marketing Association Collegiate Chapter
- Beta Alpha Psi
- Beta Gamma Sigma
- Enactus
- Institute of Management Accountants
- Management Information Systems Association
- Pi Sigma Epsilon (PSE) - Professional Sales Organization
- Society for Human Resource Management (SHRM)
- Student Investment Fund Organization
- Student Leadership Council
- Student Nonprofit Leadership Organization

## Professional Development Programs

The Williamson College of Business Administration offers extensive programming to ensure students are career-ready upon graduation. Programs such as Accounting & Finance Practitioner Day, VITA Tax Program, Professional Development Summit, Marketing Shadow Day, and Meet the Employers Day are designed to assist students in building their professional network, expanding their knowledge of the business world and developing skills to advance their readiness for full-time professional employment. WCBA academic advisors and the Center for Career Management staff are available

to help students with academic planning, interview skills, resume writing, and internship/job search strategies.

## Honor Societies

The Williamson College of Business Administration recognizes students' outstanding academic performance through initiation into Beta Gamma Sigma, the national honor society for AACSB International-accredited business schools. Students who qualify for Beta Gamma Sigma are inducted in the spring of each year. To be eligible, students must be in the upper 10 percent of the junior class, the upper 10 percent of the senior class, or the upper 20 percent of the graduating master's class.

Qualified business students are also eligible for membership in Phi Kappa Phi, a national honor society that recognizes superior scholarship in all academic fields, and Beta Alpha Psi, the national professional organization for accounting, finance, and information systems majors who have completed one upper level course, have a 3.0 accounting, finance, or information systems GPA, and have a 3.0 overall GPA.

## WCBA Business Leaders

The Williamson College of Business Administration Business Leaders Program is designed for students who excel academically and demonstrate a high level of commitment to their professional and leadership development. This program provides a select group of incoming freshmen with a variety of opportunities to increase their knowledge of business, accelerate their involvement with the business community, and enhance their professional preparation. To be eligible for the Business Leaders Program, students must have:

- 3.5 high school grade point average
- ACT Score of at least 25 or SAT score of at least 1150

## Study Abroad and Global Learning Experiences

Students who study abroad cultivate a global mindset that allows them to identify opportunities across a broad spectrum of different countries and economies. A global mindset cannot be taught—it comes with experience. The Williamson College of Business Administration offers several programs to prepare students for entry into the world-wide business environment including:

- Short-term global learning experiences lasting approximately 10 days typically offered during a class break period (winter and spring break). These are faculty-led tours that include business and cultural visits. Students receive three credit hours of upper level business coursework that is applied to their degree requirements.
- Study Abroad Programs offered through YSU Center for International Studies and Programs offer a variety of semester long international study experiences. These programs allow students to live-in and take classes at an international university. WCBA students have spent a semester abroad studying in Italy, Australia, China, and Spain.

## Lariccia School of Accounting and Finance

Peter Woodlock, Director

(330) 941-3084

The Lariccia School of Accounting and Finance in the Williamson College of Business Administration prepares students for careers in Accounting and Finance.

Accounting majors learn how to gather, analyze, record and audit financial information - with this information being of central importance when making business decisions. Graduates of accounting programs can pursue careers in

general accounting, tax, audit, consulting, government accounting, or nonprofit accounting. There are many professional accounting certifications including Certified Public Accounting (CPA), Certified Management Accounting (CMA), Certified Fraud Examiner (CFE), and Certified Internal Auditor (CIA).

Finance professionals use financial information to analyze a company's future prospects and manage its money, assess markets to make investment decisions, assist individuals in planning their financial future, or assess the financial risk of company decisions. Those with a major in finance pursue careers in areas such as manufacturing, investments, financial services including banking and insurance, risk management, or financial planning. Professional certifications include Certified Financial Planner (CFP) and Chartered Financial Analyst (CFA).

The Lariccia School of Accounting and Finance faculty offers several programs to help students become career-ready upon graduation including Accounting & Finance Student Practitioner Day, VITA Program, Professional Development Summit, Meet the Employers Day and on-campus internship interviews.

### Chair

**Peter Woodlock**, Ph.D., Professor, Chair

### Professor

**Huaiyu (Peter) Chen**, Ph.D., Associate Professor

**Marsha M. Huber**, Ph.D., Associate Professor

**Maria Paulina Kassawat**, Ph.D., Assistant Professor

**David B. Law**, Ph.D., Professor

**Kathleen E. Mumaw**, M.B.A., Assistant Professor

**Karin A. Petruska**, Ph.D., Associate Professor

**Jeremy T. Schwartz**, Ph.D., Assistant Professor

**Raymond J. Shaffer**, D.B.A., Assistant Professor

**Fran Marie Wolf**, Ph.D., Professor

**Xiaolou Yang**, Ph.D., Associate Professor

## Majors

- BSBA in Accounting (p. 575)
- BSBA in Finance, Financial Management Track (p. 578)
- BSBA in Finance, Certified Financial Planner Track (p. 576)

## Minors

- Accounting Minor (p. 579)
- Finance Minor (p. 579)

## Accounting

### ACCT 1503 Elementary Accounting 3 s.h.

Terminology, concepts and principles of basic financial and managerial accounting from a user perspective. Internal controls, cash controls, and payroll accounting are covered. Does not fulfill WCBA requirements and cannot substitute for ACCT 2602.

### ACCT 2600 Accounting Field Experience 1 s.h.

Internship and/or cooperative education experiences in accounting. Students may be assigned to corporate, non-profit, or government entities on a semester basis. Can repeat this course once for a different field experience.

**Prereq.:** 2.5 GPA, department approval and sophomore standing.

### ACCT 2602 Financial Accounting 3 s.h.

Study of the accounting cycle and generally accepted accounting principles including preparation of financial statements.

**Prereq.:** Sophomore standing or "C" or better in BUS 1500 and "C" or better in MATH 1507 or level 40 on math placement test.

### ACCT 2603 Managerial Accounting 3 s.h.

Study of the accounting informational needs of management. Emphasis on techniques of planning and control.

**Prereq.:** "C" or better in ACCT 2602.

### ACCT 2603L Managerial Accounting Spreadsheet Lab 1 s.h.

The purpose of this course is to provide spreadsheet skills to business majors. The course will be taught using current software and will cover areas like spreadsheet design, formula development, pivot tables, charting basics and importing and exporting of data. This course is required for accounting and finance majors and may be taken concurrently with Accounting 2603.

**Prereq.:** "C" or better in ACCT 2602 and concurrently with ACCT 2603 or permission of the director.

### ACCT 3701 Intermediate Accounting 1 4 s.h.

Comprehensive study of the theories and concepts underlying financial accounting. Emphasis on income determination, asset valuation, measurement of liabilities and changes in financial position.

**Prereq.:** "C" or better in ACCT 2603 and ACCT 2603L and 2.5 overall GPA.

### ACCT 3702 Intermediate Accounting 2 4 s.h.

Comprehensive study of the theories and concepts underlying financial accounting. Emphasis on income determination, asset valuation, measurement of liabilities and changes in financial position.

**Prereq.:** "C" or better in ACCT 3701 and 2.5 overall GPA.

### ACCT 3709 Accounting Information Systems 4 s.h.

Study of systems analysis, design, and implementation within the context of an accounting information system. Topics include a treatment of the business computing environment, security and control of information, the accounting information system as a component of the management information system, and decision support and expert systems.

**Prereq.:** "C" or better in ACCT 3701 and 2.5 overall GPA.

### ACCT 3710 Analysis and Design of Accounting Databases 3 s.h.

An introduction to the analysis of accounting databases. Specific emphasis is placed on the structure and use of accounting databases, particularly XBRL.

2.5 overall GPA.

**Prereq.:** ACCT 3709.

### ACCT 3711 Cost Accounting 3 s.h.

Study of cost accumulation for products manufactured under job order or continuous manufacturing processes; cost behavior and profit-volume relationships; cost structures for control and motivation; relevant costs for non-routine decision making.

**Prereq.:** "C" or better in ACCT 2603 and ACCT 2603L and 2.5 overall GPA.

### ACCT 3712 Advanced Cost 3 s.h.

In-depth study of standard and differential costing. Compilation and preparation of budget data for managerial and administrative purpose. 2.5 overall GPA.

**Prereq.:** "C" or better in ACCT 3711.

### ACCT 3721 State and Local Taxes 3 s.h.

Theory applicable to state and local taxation. Primary emphasis on taxation principles in current use by state and local government units located throughout the United States. Case law is studied, some representative tax returns prepared. 2.5 overall GPA.

**Prereq.:** "C" or better in ACCT 2603.

### ACCT 3730 Oil and Gas Accounting 3 s.h.

Accounting and taxation principles and procedures for the petroleum industry. Topics include exploration, leasing, drilling and production problems. 2.5 overall GPA.

**Prereq.:** "C" or better in ACCT 2603.

**ACCT 3750 Fraud Examination 3 s.h.**

Study of occupational fraud and abuse. Topics include asset misappropriation schemes, corruption, and fraudulent statements, including fraudulent financial statements. Coverage of these topics includes implications for the fraud examiner and corporate management. 2.5 overall GPA.

**Prereq.:** "C" or better in ACCT 2602.

**ACCT 4801 Advanced Accounting 4 s.h.**

Financial accounting and reporting related to complex and highly sophisticated business transactions. Topics include the equity method, business combinations, variable interest entities, segment and interim reporting, worldwide diversity of accounting standards, foreign currency transactions and translation, SEC reporting, legal reorganizations and liquidations, partnership accounting, and estates and trusts. 2.5 overall GPA.

**Prereq.:** "C" or better in ACCT 3702 and FIN 3720.

**ACCT 4808 Auditing and Fraud Investigation 4 s.h.**

The theory and practice of financial auditing with emphasis on fraud investigation. Topics include professional standards, audit reports, evidence, occupational fraud, data interrogation, and computer-assisted audit techniques. Students analyze actual business fraud cases. "C" or better in FIN 3720. 2.5 overall GPA.

**Prereq.:** "C" or better in ACCT 3702, ACCT 3709, and ACCT 3711.

**ACCT 4809 Security and Privacy in Electronic Commerce 3 s.h.**

This course focuses on the technology and communication infrastructure supporting electronic commerce and its impact on auditing. Encryption, public key infrastructure, digital signatures, payment schemes, and web commerce are discussed. 2.5 overall GPA.

**Prereq.:** ACCT 4808.

**ACCT 4813 Federal Taxation 1 4 s.h.**

Introduction to Federal taxation theory and concepts relating to individuals and business entities, including tax research and tax form preparation. 2.5 overall GPA.

**Prereq.:** "C" or better in ACCT 3701, or FIN 3720.

**ACCT 4815 Estate Planning 3 s.h.**

A study of estate and gift tax law including tax return preparation. Emphasis on the importance of estate planning and the devices available for use in such planning, and effective uses of lifetime gifts, trusts, life insurance, pension plans, profit sharing, and other fringe benefit plans. The effects of state inheritance tax and property laws upon estate planning will be included. 2.5 overall GPA.

**Prereq.:** "C" or better in ACCT 4813.

**ACCT 4817 Income Tax Preparation 1 3 s.h.**

Preparation of actual federal, state and local income tax returns of people from the community. Completion of an IRS training program in federal income taxation of individuals, including international students and scholars and military personnel. Training using professional income tax preparation software is also provided. 2.5 overall GPA.

**Prereq.:** ACCT 3701 or permission of instructor.

**ACCT 4818 Income Tax Preparation 2 2 s.h.**

A continuation of ACCT 4817, Income Tax Preparation 1. Completion of an updated/current IRS training program in federal income taxation of individuals, including international student and scholar and military income tax preparation. Students also receive updated training in current income tax preparation software. Students prepare federal, state and local income tax returns for individuals using current law. Because of previous experience in ACCT 4817, students prepare more-complex tax returns and provide guidance and leadership to first-year students. May be repeated once. 2.5 overall GPA.

**Prereq.:** ACCT 4817.

**ACCT 4835 Research in Accounting and Taxation 3 s.h.**

This course provides useful guidance and information in conducting practical professional tax and accounting research. A broad range of case analyses allows the instructor to focus on appropriate current topics in the accounting profession. Three hours lecture and hands-on research per week. 2.5 overall GPA.

**Prereq.:** "C" or better in ACCT 3702 and ACCT 4813.

**ACCT 4840 Accounting Internship 3 s.h.**

The student is given the opportunity to relate theory to practice in a career related on-site field experience with a participating organization.

**Prereq.:** Accounting major, junior standing, 2.5 overall GPA, and approval of director.

**ACCT 4841 Accounting Internship 2 3 s.h.**

Students have the opportunity to relate theory to practice in a career related on-site field experience with a participating organization. Accounting Internship 2 may be done at a different or the same organization as ACCT 4840; if the same organization, higher levels of duties and performance are expected. 2.5 overall GPA, and approval of director.

**Prereq.:** "B" or better in ACCT 4840.

**ACCT 4851 Professional Practice in Accounting 1 s.h.**

Provides students with cooperative education experiences in accounting. Students may be assigned to public, corporate, or government entities on a semester to semester basis. May be repeated. 2.5 overall GPA.

**Prereq.:** Accounting major, junior standing.

**ACCT 4855 Careers and Professionalism in Acct 1 s.h.**

Professionals from public, private, nonprofit and governmental accounting areas are invited to speak during class. The focus is how to plan for, and what to expect when starting an accounting career, and how to conduct oneself as a professional. Ethical considerations are emphasized. The class offers a unique opportunity to interact and network with accounting professionals.

**Prereq.:** Junior standing or permission of instructor, and 2.5 overall GPA.

**ACCT 4860 Special Topics in Accounting 1-4 s.h.**

Subject matter, credit hours, and prerequisites will be announced in advance of each topic. 2.5 overall GPA.

**Prereq.:** Permission of department chairperson.

**ACCT 4860R Special Topics Integrating Design Thinking with Accounting Decision Making 1-4 s.h.**

Subject matter, credit hours, and prerequisites will be announced in advance of each topic. 2.5 overall GPA.

**Prereq.:** Permission of department chairperson.

**ACCT 4870 CPA Review Financial Accounting and Reporting 2 s.h.**

A CPA review course focused on preparing students to take the financial accounting and regulation sections of the CPA exam. Only ONE 2 semester hour CPA Review course may be used as an Upper Division Business elective towards the BSBA degree; cannot be used as an Accounting elective.

**Prereq.:** "C" or better in ACCT 4801 and 2.5 overall GPA.

**ACCT 4871 CPA Review Regulation 2 s.h.**

A CPA review course focused on preparing students to take the regulation section of the CPA exam, including familiarizing students with the computer based questions and simulations found on the exam. Only ONE 2 semester hour CPA Review course may be used as an Upper Division Business elective toward the BSBA degree; cannot be used as an Accounting elective.

**Prereq.:** "C" or better in ACCT 4813, 2.5 overall GPA.

**ACCT 4872 CPA Review AUDIT 2 s.h.**

A CPA review course focused on preparing students to take the Auditing and Attestation section of the CPA exam. Only ONE 2 semester hour CPA Review course may be used as an Upper Division Business elective towards the BSBA degree; cannot be used as an Accounting elective.

**Prereq.:** "C" or better in ACCT 4808, 2.5 overall GPA.

**ACCT 4873 CPA Review Business Environment and Concepts 2 s.h.**

A CPA review course focused on preparing students to take the Business Environment and Concepts sections of the CPA exam. Only ONE 2 semester hour CPA Review course may be used as an Upper Division Business elective towards the BSBA degree; cannot be used as an Accounting elective.

**Prereq.:** "C" or better in ACCT 3709, 3711 and FIN 3720 and 2.5 overall GPA.

**ACCT 5814 Federal Taxation 2 3 s.h.**

Study of current Federal income tax law applying to proprietorships, corporations, S corporations, and partnerships. Includes fundamentals of researching tax law and preparing business tax returns. 2.5 overall GPA.

**Prereq.:** "C" or better in ACCT 4813.

**ACCT 5820 Government and Funds Accounting 3 s.h.**

Generally accepted accounting principles for not-for-profit and governmental organizations as established by the appropriately recognized, standard-setting bodies. Includes state and local governments, school districts, colleges and universities, hospitals, voluntary health and welfare organizations, and others.

**Prereq.:** "C" or better in ACCT 3701 and 2.5 overall GPA.

## Finance

**FIN 2600 Finance Field Experience 1 s.h.**

Internship and/or cooperative education experiences in finance. Students may be assigned to corporate, non-profit, or government entities on a semester basis. Can repeat this course once for a different field experience.

**Prereq.:** 2.5 GPA, department approval, and sophomore standing.

**FIN 2615 Planning Your Financial Future 3 s.h.**

An introductory course to personal finance planning. Emphasis on establishing financial goals and monitoring progress toward reaching those goals to improve the individual's quality of life. Topics include financial planning process, budgeting, credit, financing strategies, education planning, tax planning, etc. Open to business and non-business majors. Serves as the first course for students who are interested in the finance field.

**FIN 3715 Planning Your Financial Future 3 s.h.**

An introductory course to personal finance planning. Emphasis on establishing financial goals and monitoring progress toward reaching those goals to improve the individual's quality of life. Topics include financial planning process, budgeting, credit, financing strategies, education planning, tax planning, etc.. Open to business and non-business majors.

**Prereq.:** ENGL 1550, MATH Level 20, Junior standing and 2.5 overall GPA.

**FIN 3720 Business Finance 3 s.h.**

Study of the financial problems associated with the life cycle of business. Analysis of problems relating to estimating the financial needs of an enterprise and to evaluating the alternative means of providing temporary and permanent capital. Relationship of current financial decision with financial policy is analyzed from the viewpoint of management and the investor. 2.5 overall GPA.

**Prereq.:** "C" or better in ACCT 2603 and ACCT 2603L.

**FIN 3721 Personal Financial Management 4 s.h.**

An integration of the comprehensive financial planning process into the individual's financial life cycle. Includes accumulation, preservation, and distribution of financial assets. Topics include financial planning basics and risk management, investment selection, retirement planning and employee benefits, tax considerations, estate and trust basics. Junior standing and 2.5 overall GPA.

**Prereq.:** "C" or better in FIN 3720.

**FIN 3725 Real Estate Investment 3 s.h.**

Topics include real property ownership, real estate markets, valuation methods, financing methods and management of real estate investments. 2.5 overall GPA.

**Prereq.:** "C" or better in FIN 3720.

**FIN 3726 Risk Management 3 s.h.**

Introduces students to risk management and insurance decisions in personal and business financial planning. Topics include insurance for life, health, disability, property and liability risks as well as annuities, group insurance, long-term care insurance and social security. 2.5 overall GPA.

**Prereq.:** "C" or better in FIN 2615 and FIN 3720.

**FIN 3730 Investment Planning 4 s.h.**

Introduces topics of investment planning, vehicles, analysis and strategies required in the financial planning process. Discussions are within the context of risk and return, asset valuation, various financial instruments, financial mathematics, asset pricing models and portfolio management. The aim of the course is for students to gain the knowledge to evaluate alternative investment choices in the context of client's financial planning needs. 2.5 overall GPA.

**Prereq.:** "C" or better in FIN 3720.

**FIN 4833 Retirement Plans & Employee Benefits 4 s.h.**

Provides students with retirement and employee benefits topics required for a financial planning career discussed within the context of time value of money, inflation, and taxation. Specifically, insurance (life, disability and medical) issues, ESOPs and deferred compensation plans, private and public retirement plans and distribution rules are reviewed in-depth. 2.5 overall GPA.

**Prereq.:** "C" or better in FIN 3720.

**FIN 4835 Advanced Business Finance 4 s.h.**

In-depth examination of the techniques and analyses employed in the financial management process. Advanced study of working capital management, capital budgeting, and long- and short-term financing choices. Integrated decision making tools such as the options framework as well as economic value added. 2.5 overall GPA.

**Prereq.:** "C" or better in FIN 3720.

**FIN 4836 Financial Markets 4 s.h.**

An examination of global financial markets, institutions, and instruments with emphasis on factors influencing how firms and individuals make financing and investing decisions. Advanced coverage of primary market financing, investment banking, stock and index options, financial futures. 2.5 overall GPA.

**Prereq.:** "C" or better in FIN 3720 and FIN 3730.

**FIN 4838 Financial Plan Development 4 s.h.**

Prepares students with financial planning knowledge, skills and ability to integrate, apply and communicate to their clients. Planning recommendations are demonstrated through real-life case studies. The focus of this capstone course is on the fundamental planning practices, professional skills and integration of concepts and knowledge. 2.5 overall GPA.

**Prereq.:** "C" or better in FIN 3726, FIN 4833 and ACCT 4815.

**FIN 4839 International Accounting and Finance 3 s.h.**

Cross-functional introduction to multinational enterprises and multinational financial management with emphasis on foreign currency risk management; measuring and managing accounting and economic exposure; foreign trade and investment analysis; various topics in international accounting and finance. 2.5 overall GPA.

**Prereq.:** "C" or better in FIN 3720.

**FIN 4841 Seminar in Investments and Security Markets 3 s.h.**

An examination of the literature on efficient capital markets with implications for security selection and portfolio management. 2.5 overall GPA.

**Prereq.:** "C" or better in FIN 3720.

**FIN 4845 Business Valuation 3 s.h.**

Study of business valuation techniques currently used in valuing publicly traded and private equity to include: cash flows, forecasting, estimating cost of capital for public and private companies, valuation of stand-alone companies and business units from perspective of acquirer and seller. 2.5 overall GPA.

**Prereq.:** "C" or better in FIN 3720.

**FIN 4850 Finance Internship 3 s.h.**

The student is given the opportunity to relate theory to practice in a career related on-site field experience with a participating organization.

**Prereq.:** Finance major, junior standing, 2.75 Finance GPA, 2.5 overall GPA and approval of director.

**FIN 4851 Finance Internship 2 3 s.h.**

Students have the opportunity to relate theory to practice in a career related on-site field experience with a participating organization. Finance Internship 2 may be done at a different or the same organization as FIN 4850; if the same organization, higher levels of duties and performance are expected. 2.5 overall GPA, and approval of director.

**Prereq.:** grade of "B" or better in FIN 4850.

**FIN 4853 Financial Analysis 4 s.h.**

Theory and practice of financial analysis. Analysis and interpretation of financial information with emphasis on practical applications. Projected financial statements, budgeting, valuation and computer modeling of current financial problems. 2.5 overall GPA.

**Prereq.:** "C" or better in FIN 3720.

**FIN 4860 Special Topics in Finance 1-4 s.h.**

Subject matter, credit hours, and prerequisites will be announced in advance of each topic. 2.5 overall GPA.

**Prereq.:** Permission of director.

## Bachelor of Science in Business Administration in Accounting

Accounting is a service activity, a descriptive/analytical discipline, and an information system. As a service activity, it provides users with quantitative financial information to aid in making business-related decisions. As a descriptive, analytical discipline, it identifies those economic transactions affecting an entity and describes—through measurement, classification, summarization, and reporting—the impact of the transactions on the entity. As an information system, accounting communicates financial information to interested parties. Accountants are involved in one or more of these areas.

### Career Opportunities

The demand for accounting graduates continues to grow as corporations develop, tax laws change, and new government regulations are introduced.

All types of organizations—public and private—require accounting services in their operations. Those working in private accounting can specialize in financial accounting/reporting, cost accounting, accounting information systems, managerial accounting, internal auditing, tax accounting, budgeting, and financial analysis. Those working in public accounting can specialize in external auditing, management advisory services, tax accounting, and valuation services.

Employers of accountants include: public accounting firms, banks, retail and wholesale businesses, manufacturers, tax firms, pension funds, foundations, hospitals, universities, churches, nonprofit organizations, government agencies, and consulting companies. Self-employed accountants may set up their own offices and work for private clients.

### student experiences

Accounting students at Youngstown State University have the opportunity to build their leadership skills through various student organizations (http://www.yzu.edu/academics/williamson-college-business-administration/student-organizations-and-experiences). Specific organizations related to accounting include the Institute of Management Accountants and Beta Alpha Psi, the professional business organization for accounting, finance and information system majors. Students can also become student members of the American Institute of CPA's and the Institute of Management Accountants.

All business majors are strongly encouraged to complete internships. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

### requirements to Sit for the Certified Public Accountants (CPA) Exam

Ohio residents wishing to sit for the Certified Public Accountant (CPA) exam are required to have completed 150 semester hours of education. To assist our students in meeting this requirement and to enhance their overall education and preparation for the exam, the WCBA offers the Master of Accountancy (MAcc) Program. This program is a 30 semester hour graduate program. With proper planning and coordination, a student can complete both a BSBA and MAcc in five years. For more information on sitting for the CPA exam, please contact the Accountancy Board of Ohio (http://www.acc.ohio.gov).

For more information, visit the **Lariccia School of Accounting and Finance** (http://www.yzu.edu/academics/williamson-college-business-administration).

COURSE	TITLE	S.H.
<b>GENERAL EDUCATION</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
PHIL 2628	Business Ethics	3
CMST 1545	Communication Foundations	3
GE: Arts & Humanities		3
GE: Natural Science	One science course must include a lab	7
GE: Social & Personal Awareness		6
<b>BUSINESS TOOL COURSES</b>		
Business Tool courses must be completed with the grade of a "C" or higher and CANNOT be taken credit/no credit.		
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ENGL 3742	Business Writing	3
ECON 3790	Statistics for Business and Economics	5
<b>BUSINESS CORE REQUIREMENTS</b>		
To enroll in upper level business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all business tool courses AND have a minimum 2.5 overall GPA.		
Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3789	Operations Management	3
MGT 4850	Strategic Management and Leadership	3
<b>ACCOUNTING MAJOR REQUIREMENTS</b>		
ACCT 3701	Intermediate Accounting 1	4
ACCT 3702	Intermediate Accounting 2	4
ACCT 3709	Accounting Information Systems	4
ACCT 3711	Cost Accounting	3
ACCT 4801	Advanced Accounting	4
ACCT 4808	Auditing and Fraud Investigation	4
ACCT 4813	Federal Taxation 1	4
MGT 3714	Legal Environment of Business 2	3
<b>ACCOUNTING UPPER LEVEL COURSES</b>		
Select 6 SH upper level Accounting courses not included in major. Students should consider at least ONE internship.		
<b>BUSINESS UPPER LEVEL COURSES</b>		
Select 6 SH courses from a business area (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG)		
<b>Total Semester Hours</b>		<b>120</b>
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4



ECON 2610	Principles 1: Microeconomics	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
GE: Natural Science		3
GE: Arts & Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
ACCT 2602	Financial Accounting	3
PHIL 2628	Business Ethics	3
ENGL 3742	Business Writing	3
GE: Social & Personal Awareness		3
GE: Lab Science		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ECON 3790	Statistics for Business and Economics	5
MKTG 3702	Business Professionalism	1
GE: Social & Personal Awareness		3
<b>Semester Hours</b>		<b>13</b>
<b>Year 3</b>		
<b>Fall</b>		
ACCT 3701	Intermediate Accounting 1	4
ACCT 3711	Cost Accounting	3
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
Upper Level Business Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ACCT 3702	Intermediate Accounting 2	4
ACCT 3709	Accounting Information Systems <sup>1</sup>	4
FIN 3720	Business Finance	3
Upper Level Accounting Course (internship recommended)		3
<b>Semester Hours</b>		<b>14</b>
<b>Year 4</b>		
<b>Fall</b>		
ACCT 4801	Advanced Accounting	4
ACCT 4813	Federal Taxation 1	4
MGT 3789	Operations Management	3
BUS 3715	Principles of International Business	3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
ACCT 4808	Auditing and Fraud Investigation	4
MGT 3714	Legal Environment of Business 2	3
MGT 4850	Strategic Management and Leadership	3
Upper Level Accounting Course		3
Upper Level Business Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Total Semester Hours</b>		<b>120</b>

ENGL 1550, ENGL 1551, Business Tool and upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG) must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

To enroll in upper level Business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545 and business Tool courses AND have a minimum 2.5 overall GPA.

## Learning Outcomes

The student learning outcomes for majors within the Lariccia School of Accounting and Finance are as follows:

- Students will be able to identify, formulate, and solve discipline-specific problems within the context of business, ethical, and societal constraints;
- Students will learn to function and communicate (in writing and orally) both individually and within multidisciplinary teams;
- Students will develop enhanced technology skills by being exposed to assignments requiring advanced computer/spreadsheet knowledge, expanded presentation activity (e.g. PowerPoint in the oral-intensive courses), and required analysis of financial statements;
- Students will be given opportunities to work with and be exposed to the business community and professionals through internship opportunities, student organizations, and social functions;
- Students will obtain an understanding of professional and ethical responsibilities and a recognition of and an appreciation for the need to engage in life-long learning.

## Bachelor of Science in Business Administration in Finance, Certified Financial Planning Track

The Certified Financial Planner (CFP) track focuses on working directly with individuals, helping them to plan for and meet their short- and long-term financial goals. Students must learn to fully understand the client's financial situation as well as financial laws and legal documents. Investment types commonly dealt with include investments and security planning, estate planning, tax planning, employee benefits planning, and insurance planning.

### CAREER OPPORTUNITIES

The demand for qualified personal financial planners is growing rapidly. This demand is due in part to the many Americans who are reaching retirement age in need of personal financial planning expertise. A good financial planner understands investments, taxes, estate planning issues, and how to talk and listen to people. They work in financial services, banks, wealth management companies and independently as entrepreneurs in the field. YSU students who have successfully completed all requirements of BS in Finance CFP Track satisfy the education coursework requirement of the CFP Board and are eligible to sit for The CFP® Certification Examination.

All business majors are strongly encouraged to complete internships. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

### STUDENT EXPERIENCES

Finance students at Youngstown State University have the opportunity to build their knowledge and leadership skills through a variety of WCBA student organizations (<http://www.yсу.edu/academics/williamson-college-business-administration/student-organizations-and-experiences>), including the Student Investment Fund.

COURSE	TITLE	S.H.
<b>GENERAL EDUCATION</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
PHIL 2628	Business Ethics	3
CMST 1545	Communication Foundations	3
GE: Arts & Humanities		3
GE: Natural Sciences	Onescience course must include a lab	7
GE: Social & Personal Awareness		6
<b>BUSINESS TOOL COURSES</b>		
Business Tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
ACCT 2603L	Managerial Accounting Spreadsheet Lab	1
ENGL 3742	Business Writing	3
ECON 3790	Statistics for Business and Economics	5
<b>BUSINESS CORE COURSES</b>		
To enroll in upper level business courses a student must be successfully completed with ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, ALL Business Tool courses and have a minimum 2.5 overall GPA.		
Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MGT 4850	Strategic Management and Leadership	3
<b>CERTIFIED FINANCIAL PLANNING REQUIRED COURSES</b>		
FIN 3715	Planning Your Financial Future	3
FIN 3726	Risk Management	3
FIN 3730	Investment Planning	4
FIN 4833	Retirement Plans & Employee Benefits	4
FIN 4838	Financial Plan Development	4
ACCT 4813	Federal Taxation 1	4
ACCT 4815	Estate Planning	3
<b>FINANCE UPPER LEVEL COURSE</b>		
Select 4 SH of upper level Finance courses not included in major.		
<b>BUSINESS UPPER LEVEL COURSES</b>		
Select 12 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MKT, MKTG). Students should consider at least one internship for credit.		
<b>Total Semester Hours</b>		<b>122</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4

ECON 2610	Principles 1: Microeconomics	3
GE: Social & Personal Awareness		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
GE: Natural Science		3
GE: Arts & Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
ACCT 2602	Financial Accounting	3
CMST 1545	Communication Foundations	3
ENGL 3742	Business Writing	3
GE: Social & Personal Awareness		3
GE: Lab Science		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ECON 3790	Statistics for Business and Economics	5
PHIL 2628	Business Ethics	3
MKTG 3702	Business Professionalism	1
<b>Semester Hours</b>		<b>13</b>
<b>Year 3</b>		
<b>Fall</b>		
FIN 3715	Planning Your Financial Future	3
FIN 3720	Business Finance	3
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
Upper Level Business Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
FIN 3726	Risk Management (spring term only)	3
FIN 3730	Investment Planning	4
MGT 3761	Management Information Systems	3
BUS 3715	Principles of International Business	3
ACCT 4813	Federal Taxation 1	4
<b>Semester Hours</b>		<b>17</b>
<b>Year 4</b>		
<b>Fall</b>		
ACCT 4815	Estate Planning (fall term only)	3
FIN 4833	Retirement Plans & Employee Benefits (fall term only)	4
Upper Level Finance Course		4
Upper Level Business Course		3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
FIN 4838	Financial Plan Development (spring term only)	4
MGT 4850	Strategic Management and Leadership	3
MGT 3789	Operations Management	3
Upper Level Business Course (internship recommended)		3
Upper Level Business Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Total Semester Hours</b>		<b>122</b>

ENGL 1550, ENGL 1551, Business Tool and upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG) must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

To enroll in upper level Business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.

## Learning Outcomes

The student learning outcomes for majors within the Lariccia School of Accounting and Finance are as follows:

- Students will be able to identify, formulate, and solve discipline-specific problems within the context of business, ethical, and societal constraints;
- Students will learn to function and communicate (in writing and orally) both individually and within multidisciplinary teams;
- Students will develop enhanced technology skills by being exposed to assignments requiring advanced computer/spreadsheet knowledge, expanded presentation activity (e.g. PowerPoint in the oral-intensive courses), and required analysis of financial statements;
- Students will be given opportunities to work with and be exposed to the business community and professionals through internship opportunities, student organizations, and social functions;
- Students will obtain an understanding of professional and ethical responsibilities and a recognition of and an appreciation for the need to engage in life-long learning.

# Bachelor of Science in Business Administration in Finance, Financial Management Track

The Financial Management track of the Finance major focuses on managing the finances of an organization as opposed to individuals. Examples of duties include analyzing financial information and competitor data, making recommendations based on the financial information, and monitoring outcomes. Employers hiring Financial Management track students include banks, investment companies, insurance companies, financial institutions, and publicly traded and privately held companies.

## career opportunities

Financial Managers can be found in nearly all firms, government agencies, and organizations spending a great deal of time developing strategies to help the organization realize its long-term goals. Financial Managers supervise the preparation of financial reports, guide investment activities, and execute cash-management strategies.

All business majors are strongly encouraged to complete internships. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

## student experiences

Finance students at Youngstown State University have the opportunity to build their leadership skills through various WCBA student organizations (<http://www.yсу.edu/academics/williamson-college-business-administration/student-organizations-and-experiences>). Housed in the Lariccia School of Accounting and Finance are the Student Investment Fund, the Institute of Management Accountants, and Beta Alpha Psi, the professional business organization for accounting, finance and information system majors

**COURSE TITLE**  
GENERAL EDUCATION

S.H.

ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
PHIL 2628	Business Ethics	3
CMST 1545	Communication Foundations	3
GE: Arts & Humanities		3
GE: Natural Sciences	One science course must include a lab	7
GE: Social & Personal Awareness		6

### BUSINESS TOOL COURSES

Business Tool courses must be completed with the grade of a "C" or better and CANNOT be take Credit/No Credit.

BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ENGL 3742	Business Writing	3
ECON 3790	Statistics for Business and Economics	5

### BUSINESS CORE REQUIREMENTS

To enroll in upper level business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.

Upper level business courses must be completed with the grade of a "C" or higher and CANNOT be taken credit/no credit.

BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MGT 4850	Strategic Management and Leadership	3

### FINANCIAL MANAGEMENT REQUIRED COURSES

FIN 3715	Planning Your Financial Future	3
FIN 3730	Investment Planning	4
FIN 4835	Advanced Business Finance	4
FIN 4853	Financial Analysis	4
ACCT 3701 or ACCT 4813	Intermediate Accounting 1 Federal Taxation 1	4
		9

### FINANCE UPPER LEVEL COURSES

Select nine semester hours of upper level finance courses. Students should consider at least one internship.

### BUSINESS UPPER LEVEL COURSES 12

Select 12 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG)

### Total Semester Hours 121

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3

GE: Social & Personal Awareness		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
GE: Natural Science		3
GE: Arts & Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
ACCT 2602	Financial Accounting	3
CMST 1545	Communication Foundations	3
ENGL 3742	Business Writing	3
GE: Social & Personal Awareness		3
GE: Lab Science		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ECON 3790	Statistics for Business and Economics	5
PHIL 2628	Business Ethics	3
MKTG 3702	Business Professionalism	1
<b>Semester Hours</b>		<b>13</b>
<b>Year 3</b>		
<b>Fall</b>		
FIN 3715	Planning Your Financial Future (formerly FIN 2615)	3
FIN 3720	Business Finance	3
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
Upper Level Business Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
FIN 3730	Investment Planning	4
FIN 4835	Advanced Business Finance	4
MGT 3761	Management Information Systems	3
BUS 3715	Principles of International Business	3
Upper Level Business Course		3
<b>Semester Hours</b>		<b>17</b>
<b>Year 4</b>		
<b>Fall</b>		
ACCT 3701 or ACCT 4813	Intermediate Accounting 1 or Federal Taxation 1	4
FIN 4853	Financial Analysis	4
MGT 3789	Operations Management	3
Upper Level Finance Course (internship recommended)		3
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
MGT 4850	Strategic Management and Leadership	3
Upper Level Finance Course		3
Upper Level Finance Course		3
Upper Level Business Course		3
Upper Level Business Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>121</b>

ENGL 1550, ENGL 1551, Business Tool and upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG) must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

To enroll in upper level Business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.

## Learning Outcomes

The student learning outcomes for majors within the Lariccia School of Accounting and Finance are as follows:

- Students will be able to identify, formulate, and solve discipline-specific problems within the context of business, ethical, and societal constraints;
- Students will learn to function and communicate (in writing and orally) both individually and within multidisciplinary teams;
- Students will develop enhanced technology skills by being exposed to assignments requiring advanced computer/spreadsheet knowledge, expanded presentation activity (e.g. PowerPoint in the oral-intensive courses), and required analysis of financial statements;
- Students will be given opportunities to work with and be exposed to the business community and professionals through internship opportunities, student organizations, and social functions;
- Students will obtain an understanding of professional and ethical responsibilities and a recognition of and an appreciation for the need to engage in life-long learning.

## Minor in Accounting

Youngstown State University students are invited to enhance their educational experience with a minor in Accounting. Accounting can be described as a service activity, a descriptive/analytical discipline, and an information system. As a service activity, it provides users with quantitative financial information to aid in making business-related decisions. The minor in Accounting can be met through successful completion of the following requirements:

COURSE	TITLE	S.H.
<b>Required Courses</b>		
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
ACCT 3701	Intermediate Accounting 1	4
ACCT 3702	Intermediate Accounting 2	4
ACCT 3711	Cost Accounting	3
Accounting electives	ACCT 2603L Accounting Spreadsheet Lab recommended	1-3
<b>Total Semester Hours</b>		<b>18-20</b>

Students interested in declaring a minor in Accounting need to complete an *Intra University Transfer Request* form with their academic advisor. Students pursuing a WCBA minor must meet all course prerequisites to enroll WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA minor courses must be completed with the grade "C" or higher and cannot be taken credit/no credit.

## Minor in Finance

Youngstown State University students are invited to enhance their educational experience with a minor in Finance. The role of finance professionals is to provide information and analyses to organizations and individuals that will result in superior decision making. Students interested in learning more about the field of finance through a minor would need to complete the following requirements:

COURSE	TITLE	S.H.
<b>Required Courses</b>		

FIN 3715	Planning Your Financial Future (formerly FIN 2615)	3
FIN 3720	Business Finance	3
FIN 3730	Investment Planning	4
FIN 4835	Advanced Business Finance	4
FIN 4836	Financial Markets	4
or FIN 4853	Financial Analysis	
<b>Total Semester Hours</b>		<b>18</b>

Students interested in declaring a minor in Finance need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet course prerequisites, including a minimum 2.5 overall GPA to enroll in upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken Credit/No Credit.

## Department of Management

Rangamohan Eunni, Chair

(330) 941-3071

Management is the study of the process of working with and through others to solve practical problems and reach organizational goals. Programs offered by the Department of Management are designed to develop and enhance the skills and knowledge base necessary for successful managers. Effective managers must be able to meet the challenges of rapid change, intense and global competition, and increased sensitivity to social concerns that characterize today's business environment.

As leaders, managers are responsible for the successful performance of their unit and its function. They must have a thorough understanding of strategic planning, human resource management, product planning and design, capacity management, materials management, global operations, organizational design, and information systems. Supervisors, managers and executives are found in all types of organizations and must be effective in demonstrating interpersonal, leadership, and decision-making skills.

## Learning Outcomes

The student learning outcomes for majors within the Management Department are as follows:

- **Operations Management**—Demonstrate knowledge in role of operations management in business strategy of the firm; interdependence with other key functional areas; designing and improving processes; designing and operating value chains
- **International Business**—Demonstrate knowledge in cross-country variations in business environments that present both opportunities and challenges in operating globally; strategies and management systems to seize the opportunities and face the challenges in operating globally
- **Information Systems**—Demonstrate knowledge in role of information systems in the modern enterprise; emerging technologies (such as ERP, CRM etc.) and their potential impact on your business; managing IT resources effectively and efficiently to achieve business goals
- **Business Policy and Strategy**—Demonstrate knowledge in applying basic strategy frameworks, concepts, and definitions; cross-functional analysis, decision-making, and strategic integration; analysis of complex business/industry scenarios and development of action plans
- **Management/Organizational Behavior**—Demonstrate knowledge in management as a social process; managerial functions (planning, organizing, leading, motivating etc.) and skills (technical, communications, etc.)

For more information, visit the Department of Management (<http://www.yzu.edu/academics/williamson-college-business-administration>).

Chair

**Rangamohan V. Eunni**, D.B.A., Professor, Chair

**Professor**

**Rebecca Lee Badawy**, Ph.D., Assistant Professor

**Patrick J. Bateman**, Ph.D., Associate Professor

**Ramesh Dangol**, Ph.D., Associate Professor

**Guohong (Helen) Han-Haas**, Ph.D., Associate Professor

**Birsan Karpak**, D.B.A., Professor

**Anthony J. Kos**, Ph.D., Professor

**Betty Jo Licata**, Ph.D., Professor

**Frank G. Sole**, M.B.A., Assistant Professor

**William G. Vendemia**, Ph.D., Professor

**Instructor**

**Kimberly Pleva**, M.B.A., Instructor

## Majors

- Information and Supply Chain Management (p. 586)
- Business Administration (p. 582)
- Human Resource Management (p. 584)

## Minors

- Employee Relations Minor (p. 584)
- Management Information Systems Minor (p. 588)
- Management Minor (p. 588)

## Certificates

- Enterprise Resource Planning (ERP) Certificate (p. 584)
- Leadership Certificate (p. 588)

### MGT 2604 Legal Environment of Business 1 3 s.h.

Various sources of laws, basic legal reasoning and application. Emphasis on basic legal concepts of contracts, labor, tax, antitrust and business organizations, and their relationship to business and society.

### MGT 3705 Fundamentals of Occupational Safety 3 s.h.

Overview of the broad concepts of occupational safety and health that provide a proper foundation for understanding the basic principles of workplace safety and health programs. Analysis of the regulatory environment including OSHA and Workers' Compensation; the development of safety management programs; the evaluation of workplace hazards; and discussion of the economic, political, and societal implications involving workplace safety and health.

**Prereq.:** MGT 1510 or ENST 2600 or CJFS 1500 or BUS 1500 or consent of instructor.

### MGT 3714 Legal Environment of Business 2 3 s.h.

In-depth analysis of commercial law areas covered on the CPA exam, with emphasis on sales, secured transactions, real and personal property, insurance, bankruptcy, and commercial paper.

**Prereq.:** MGT 2604, junior standing.

### MGT 3715 Employee Relations and Workplace Ethics 3 s.h.

Examines the current legal and social issues that affect employee relations. This course explores ways to effectively manage the workforce, while practicing ethically responsible behaviors. A survey of laws and regulations that affect the workplace and business negotiations are examined. **Prereq./Coreq.:** MGT 3725 and 2.5 GPA or permission of Department Chair and 2.5 GPA.

**MGT 3725 Fundamentals of Management 3 s.h.**

Emphasizes the basic principles of management rather than those involved in business organization. The nature of managerial action within an organization, formal and informal structure, process of making decisions, and interrelated activities in management.

**Prereq.:** 2.5 GPA and junior standing.

**MGT 3750 Managing Individuals in Organizations 3 s.h.**

Study of the contributions of the fields of organizational behavior and human resources as they apply to organizational functionality. Topics include individual and group decision-making, motivation, perceptions, and attitudes as they impact human resource processes, including job design, selection, organizational development, total rewards, employee relations, and workplace health, safety, and security.

**Prereq.:** MGT 3725 or Concurrent.

**MGT 3755 Managing Workplace Diversity 3 s.h.**

Current topics in diversity: national and international demographics of the changing face of the work force; processes that create diversity including the organization of work; managing differences in work settings; management responses to diversity; and connections to larger institutional dynamics.

**Prereq./Coreq.:** MGT 3725 and 2.5 GPA or permission of Department Chair and 2.5 GPA.

**MGT 3761 Management Information Systems 3 s.h.**

Study of information systems and their interaction with individuals and organizations, providing a basic understanding of hardware, software, and computer technology used in information systems.

**Prereq.:** 2.5 GPA and junior standing.

**MGT 3771 Social Media and E-Commerce 3 s.h.**

Technologies available to organizations to reach customers, sell products, and create business values that continue to change and emerge. The course provides students with an understanding of social media and e-commerce technologies from a business/managerial perspective. Underlying issues surrounding the technologies, their development, and utilization of web-based initiatives are studied.

**Prereq.:** 2.5 GPA and MGT 3761 or concurrent.

**MGT 3789 Operations Management 3 s.h.**

Study of current operations management theories and practices with emphasis on direction, planning, and control of production systems. Includes detailed analysis in such areas as materials management, work measurement, quality control, scheduling, maintenance, and forecasting.

**Prereq.:** MGT 3725, ECON 3780.

**MGT 4801 Leadership in Business and Society 3 s.h.**

Leadership accounts for a significant part of the performance in business, non-profit organizations and government agencies. This course provides a broad understanding of leadership as phenomenon and its impact on the behavior of individuals in organizations and firm performance.

**Prereq.:** MGT 3725 and 2.5 GPA.

**MGT 4810 Compensation and Performance Appraisal 4 s.h.**

Design and administration of compensation systems. Topics: pay equity, job evaluation, wage and salary structure, merit and incentive programs, benefits packages and compensation legislation. Emphasis on the role of performance appraisal in administration decision making.

**Prereq.:** MGT 3725 and MGT 3750.

**MGT 4819 Selection, Training, and Development 4 s.h.**

Intensive analysis of programs for personnel acquisition, the training and development of employees. Includes the human resources planning process. Examination of federal and other employment legislation where applicable.

**Prereq.:** MGT 3725 and MGT 3750.

**MGT 4820 Supply Chain Management 3 s.h.**

A comprehensive description of supply chain management practices and principles to achieve a competitive advantage in a global society and integrating these principles as a core competency in enterprise strategy. Topics include logistics, technology (information networks, ERP, SAP, operations (inventory management, transportation, warehousing, and material handling) and network designs.

**Prereq.:** MGT 3789.

**MGT 4821 Business Process Integration 3 s.h.**

This course examines the forces driving enterprise integration as well as the management decisions associated with the design and implementation of enterprise systems. Students successfully completing this course will have thorough understanding of enterprise integration as well as practical experience of configuring and using SAP.

**Prereq.:** MGT 3761 or ACCT 3709 and 2.5 GPA.

**MGT 4844 Strategic Human Resource Management 3 s.h.**

Capstone course of the human resource (HR) major and should be taken in students' last semester. Purpose is to integrate knowledge within HR and across disciplines in developing and implementing HR strategy. Special focus will be given to developing the proficiencies necessary to serve as an HR consultant, especially in quantifying the impact of HR practices. Must take concurrently with MGT 4845.

**Prereq.:** MGT 4810 or MGT 4819 or consent of instructor.

**MGT 4845 Projects in Human Resource Management 1 s.h.**

Emphasizes experiential, practical application of knowledge to real-life human resource challenges.

**Prereq.:** MGT 4810 or MGT 4819 or consent of instructor.

**Coreq.:** MGT 4844.

**MGT 4850 Strategic Management and Leadership 3 s.h.**

Analysis of problems and issues faced by organizations operating in today's dynamic environment interspersed with multiple stakeholders. Students integrate concepts and techniques learned from a range of disciplines and apply them to all levels of firms functioning in a wide variety of industries.

**Prereq.:** MGT 3725, MKTG 3703, FIN 3720.

**Gen Ed:** Capstone.

**MGT 4880 Special Topics in Management 1-4 s.h.**

Subject matter, credit hours, and specific prerequisites to be announced in advance of each offering.

**Prereq.:** Senior standing in MGT or permission of instructor.

**MGT 4880L Special Topics in Management Leadership 1-4 s.h.**

Subject matter, credit hours, and specific prerequisites to be announced in advance of each offering.

**Prereq.:** Senior standing in MGT or permission of instructor.

**MGT 4881 Project and Quality Management 3 s.h.**

Study of project management topics regarding project planning, work breakdown structure, scheduling, PERT/CPM, controlling and managing the costs, resource allocation, project control, and project termination. Includes the environment in which project managers work and its organizational structures: functional, project, and matrix organizations. Computer-based project management software is also introduced.

**Prereq.:** MGT 3761 and 2.5 GPA.

**MGT 4895 Management Internship 3 s.h.**

Offers the student the opportunity to relate theory to practice through on-the-job work experience with participating organization. Mandatory bi-weekly meetings with faculty advisor to insure maximum learning from the experience. Offered all three semesters each year based on the availability of internships. A written evaluation of the job experience is required.

**Prereq.:** 20 s.h. of MGT courses including MGT 3725 and MGT 3750, and department screening and approval.

**MGT 4896 Logistics Internship 3 s.h.**

Work and study in the public or private sector centered upon the development of a significant logistics project under the direction of university faculty and designated member(s) of the participating agency. Intended for students in the logistics minor.

**Prereq.:** MGT 4882 or completion of 12 s.h. in the minor.

**MGT 4899 Independent Study 1-3 s.h.**

Development of a special topic of interest to the student under the direct supervision of a management faculty member. Credit hours vary according to the nature of the project.

**Prereq.:** MGT core and permission of department chairperson.

**MGT 5835 Systems Analysis and Design 3 s.h.**

Information systems and system development life cycle (SDLC) sizing tools and techniques used to document an information system.

**Prereq.:** MGT 3761 AND 2.5 GPA.

**MGT 5845 Work in America 3 s.h.**

Examines the changing characteristics, expectations, and representations of work in America. Includes the exploration of demographic, historic, economic, technological, sociological, religious, ethical, popular, and poetic perspectives on work.

**Prereq.:** MGT 3715 or Junior standing and 6 s.h. of GER approved SI courses.

**MGT 5865 Database Management Systems 3 s.h.**

Design and management of organizational data resources. Database issues include design, definition, creation, documentation update, maintenance, revision, selection, acquisition, and use. The implementation of the hierarchical, network, and relational models with emphasis on business applications.

**Prereq.:** MGT 3761 and 2.5 GPA.

# Bachelor of Science in Business Administration in Business Administration

## Business Administration

Business Administration is a broad business aspect of the management of a company, division of a company, department, or other entity within the organization. Business management is carried out through four main aspects: planning, organizing, leading, and controlling. Strong communication skills and critical thinking are very important in the field of business administration. Duties of a business administrator include working in groups with professionals from various backgrounds from within and outside the company to develop and achieve company goals.

Business Administration majors at Youngstown State University take courses in management, accounting, finance, and marketing. Specialization areas include enterprise resource planning, management information systems, human resource management, international business, and entrepreneurship.

### career opportunities

Business Administration is a wide field that incorporates a variety of occupations, especially in the area of management, supervision, and leadership. Managers are needed in all aspects of the workforce including corporations, small businesses, healthcare, facilities, government, and nonprofit organizations.

### student experiences

Business Administration majors at Youngstown State University have the opportunity to build their leadership skills through various WCBA student organizations. (<http://www.ysu.edu/academics/williamson-college-business-administration/student-organizations-and-experiences>)

COURSE	TITLE	S.H.
GENERAL EDUCATION		

ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
PHIL 2628	Business Ethics	3
CMST 1545	Communication Foundations	3
GE: Arts & Humanities		3
GE: Natural Sciences		7
One science course must include a lab		
GE: Social & Personal Awareness		6

### BUSINESS TOOL COURSES

Business Tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ENGL 3742	Business Writing	3
ECON 3790	Statistics for Business and Economics	5

### BUSINESS CORE REQUIREMENTS

To enroll in upper level business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.

Upper Level Business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MGT 4850	Strategic Management and Leadership	3

### BUSINESS ADMINISTRATION MAJOR REQUIREMENTS

MGT 3750	Managing Individuals in Organizations	3
Upper level ACCT or FIN Course		3
Upper level MGT course		3
Upper Level MKTG or ADV course		3
UPPER LEVEL BUSINESS SERIES		6

Select 6 SH from the same series (see below)

### UPPER LEVEL BUSINESS COURSES

Select 12 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG)

### NON-BUSINESS COURSES

Select 9 SH of non-business coursework

**Total Semester Hours** **120**

Upper Level Business Series (students must select 2 course (6 SH) from one area.

COURSE	TITLE	S.H.
Enterprise Resource Planning		
MGT 4820	Supply Chain Management	3
MGT 4821	Business Process Integration	3
Management Information Systems		
MGT 3771	Social Media and E-Commerce	3
MGT 5835	Systems Analysis and Design	3

MGT 5865	Database Management Systems	3
Human Resource Management		
MGT 3715	Employee Relations and Workplace Ethics	3
MGT 3755	Managing Workplace Diversity	3
MGT 4810	Compensation and Performance Appraisal	4
MGT 4819	Selection, Training, and Development	4
International Business		
BUS 4860	International Business Internship	3
BUS 4875	International Business Field Study Tour	1-3
FIN 4839	International Accounting and Finance	3
MKTG 4845	International Marketing	3
MKTG 4849	Export Strategy	3
MKTG 4851	Services Marketing	3
Entrepreneurship		
ENT 3700	Entrepreneurship New Venture Creation	3
ENT 3750	Entrepreneurship-Small Business Financial Management	3
ENT 4800	Entrepreneurship-Business Plan Development (Nonprofit Leadership)	3
Nonprofit Leadership		
BUS 3720	Nonprofit Leadership	3
BUS 3780	Financial Management and Fundraising for Nonprofit Organizations	3
BUS 4840	Nonprofit Leadership Internship	3
Leadership		
MGT 4801	Leadership in Business and Society	3
MGT 3715	Employee Relations and Workplace Ethics	3
MGT 3755	Managing Workplace Diversity	3
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
BUS 1500	Exploring Business	3
ENGL 1550	Writing 1	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
GE: Arts & Humanities		3
GE: Natural Science		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
ACCT 2602	Financial Accounting	3
PHIL 2628	Business Ethics	3
ENGL 3742	Business Writing	3
GE: Social & Personal Awareness		3
GE: Lab Science		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ECON 3790	Statistics for Business and Economics	5

MKTG 3702	Business Professionalism	1
GE: Social & Personal Awareness		3
<b>Semester Hours</b>		<b>13</b>
<b>Year 3</b>		
<b>Fall</b>		
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
FIN 3720	Business Finance	3
BUS 3715	Principles of International Business	3
MGT 3750	Managing Individuals in Organizations	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MGT 3761	Management Information Systems	3
MGT upper level course		3
MKTG upper level course		3
Business upper level course		3
Business upper level course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
MGT 3789	Operations Management	3
FIN/ACCT upper level course		3
BA series upper level course		3
Business upper level course		3
Non-Business Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MGT 4850	Strategic Management and Leadership	3
BA series upper level course		3
Business upper level course		3
Non Business Courses		6
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

ENGL 1550, ENGL 1551, Business Tool and upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG) must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

To enroll in upper level business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.

## Learning Outcomes

The student learning outcomes for majors within the Management Department are as follows:

- **Operations Management**—Demonstrate knowledge in role of operations management in business strategy of the firm; interdependence with other key functional areas; designing and improving processes; designing and operating value chains
- **International Business**—Demonstrate knowledge in cross-country variations in business environments that present both opportunities and challenges in operating globally; strategies and management systems to seize the opportunities and face the challenges in operating globally
- **Information Systems**—Demonstrate knowledge in role of information systems in the modern enterprise; emerging technologies (such as ERP, CRM etc.) and their potential impact on your business; managing IT resources effectively and efficiently to achieve business goals
- **Business Policy and Strategy**—Demonstrate knowledge in applying basic strategy frameworks, concepts, and definitions; cross-functional analysis,



decision-making, and strategic integration; analysis of complex business/industry scenarios and development of action plans

- **Management/Organizational Behavior**—Demonstrate knowledge in management as a social process; managerial functions (planning, organizing, leading, motivating etc.) and skills (technical, communications, etc.)

## Minor in Employee Relations

Youngstown State University students are invited to enhance their educational experience with a minor in Employee Relations. Employee Relations involves the body of work concerned with maintaining employer-employee relationships that contribute to satisfactory productivity, motivation, and morale. Essentially, Employee Relations is concerned with preventing and resolving problems involving individuals, which arise out of or affect work situations. The minor in Employee Relations can be met by completing the following requirements:

COURSE	TITLE	S.H.
<b>Required Courses</b>		
BUS 1500	Exploring Business	3
MGT 3725	Fundamentals of Management	3
MGT 3750	Managing Individuals in Organizations	3
Select two of the following:		6
MGT 3705	Fundamentals of Occupational Safety	
MGT 3715	Employee Relations and Workplace Ethics	
MGT 3755	Managing Workplace Diversity	
Select one of the following:		3-4
MGT 3761	Management Information Systems	
MGT 4801	Leadership in Business and Society	
MGT 4810	Compensation and Performance Appraisal	
MGT 4819	Selection, Training, and Development	

### Total Semester Hours

18-19

If any of the above courses are part of the student's major an alternate course needs to be substituted. Students interested in declaring a minor in Employee Relations need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet all course prerequisites to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

## Certificate in Enterprise Resource Planning (ERP)

Contact: Birsen Karpak, D.B.A.

bkarpak@ysu.edu

Enterprise Integration involves the integration of software, hardware, and networking technology at both the intra-organizational and inter-organizational levels. To be successful, management must implement a business process view of the organization. The ERP Certificate enables students to be effective users of integrated ERP software and effective participants in managing the evaluation, installation, and use of ERP software.

COURSE	TITLE	S.H.
MGT 3761	Management Information Systems	3
or ACCT 3709	Accounting Information Systems	
MGT 3789	Operations Management	3
MGT 4821	Business Process Integration	3
MGT 4820	Supply Chain Management	3
<b>Total Semester Hours</b>		<b>12</b>

Students interested in declaring an ERP certificate need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet course prerequisites to be eligible to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

## Learning Outcomes

- Would acquire the knowledge and skills needed for careers in organizations that employ ERP systems to support key business processes.
- Would receive an applied enterprise systems educational experience and hands-on practice in SAP.
- Would be able to configure an ERP system and apply it to support integrated business processes.
- Would successfully integrate logistics, operations and procurement management.

## Bachelor of Science in Business Administration in Human Resource Management

Human Resource Management (HRM) professionals provide leadership for ensuring that organizations recruit, retain and develop the best employees. People are an organization's most valuable asset and HR professionals play a key role ensuring organizations have the best people. HRM will be especially attractive to those students who like working with a broad range of people and have excellent communication and negotiating skills. HR professionals can be specialists who work in one area of HR or generalists who work in multiple areas. Key HR areas include recruitment and selection, training and development, compensation and benefits, and employee relations.

The Society for Human Resource Management (SHRM) is the world's largest membership organization for HR professionals. The HR curriculum at YSU has been reviewed by SHRM and has been approved as aligned with SHRM's HR Curriculum Guidelines.

### CAREER OPPORTUNITIES

Human Resource managers are employed in every industry. The field of Human Resources offers an array of potential career options including recruiters, placement managers, trainers, compensation analysts, compensation and benefits manager, employee relations managements, and safety coordinators. Executive level positions include Vice President of HR, Chief HR Officer, and Executive Vice President.

### STUDENT EXPERIENCES

Human Resource Management majors at Youngstown State University have the opportunity to build their leadership skills through various WCBA student organizations (<http://www.yzu.edu/academics/williamson-college-business-administration/student-organizations-and-experiences>). HR majors should plan to join the student chapter of the Society for Human Resource Management. Since the HR curriculum has been approved by SHRM, HR majors who are in their senior year and who meet the eligibility requirements may apply to take the SHRM Certified Professional (SHRM-CP) exam.

All business majors are strongly encouraged to complete internships. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

COURSE	TITLE	S.H.
<b>GENERAL EDUCATION</b>		
ENGL 1550	Writing 1	3

ENGL 1551	Writing 2	3
PHIL 2628	Business Ethics	3
CMST 1545	Communication Foundations	3
GE: Arts & Humanities		3
GE: Natural Sciences <small>One science course must include a lab</small>		7
GE: Social & Personal Awareness		6
<b>BUSINESS TOOL COURSES</b>		
Business tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ENGL 3742	Business Writing	3
ECON 3790	Statistics for Business and Economics	5
<b>BUSINESS CORE COURSES</b>		
To enroll in upper level business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.		
Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MGT 4850	Strategic Management and Leadership	3
<b>HUMAN RESOURCE MANAGEMENT REQUIRED COURSES</b>		
MGT 3715	Employee Relations and Workplace Ethics	3
MGT 3750	Managing Individuals in Organizations	3
MGT 4810	Compensation and Performance Appraisal <small>spring term only</small>	4
MGT 4819	Selection, Training, and Development <small>fall term only</small>	4
MGT 4844 & MGT 4845	Strategic Human Resource Management and Projects in Human Resource Management <small>spring term only</small>	4
<b>HUMAN RESOURCE UPPER LEVEL COURSE</b>		
Select one of the following: MGT 3705, MGT 3755, MGT 4801, MGT 4895 or MGT 4899. Internship Recommended.		
<b>MANAGEMENT UPPER LEVEL COURSES</b>		6
Select 6 SH of upper level MGT courses.		
<b>BUSINESS UPPER LEVEL COURSES</b>		6
Select 6 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG).		
<b>NON-BUSINESS COURSES</b>		6
<b>Total Semester Hours</b>		<b>120</b>

## BSBA in Human Resource Management Suggested Four-Year Plan

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
GE: Social & Personal Awareness		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
GE: Natural Science		3
GE: Arts & Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
ACCT 2602	Financial Accounting	3
CMST 1545	Communication Foundations	3
ENGL 3742	Business Writing	3
GE: Social & Personal Awareness		3
GE: Lab Science		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ECON 3790	Statistics for Business and Economics	5
PHIL 2628	Business Ethics	3
MKTG 3702	Business Professionalism	1
<b>Semester Hours</b>		<b>13</b>
<b>Year 3</b>		
<b>Fall</b>		
MGT 3715	Employee Relations and Workplace Ethics	3
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3750	Managing Individuals in Organizations	3
Business Upper Level Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
FIN 3720	Business Finance	3
MGT 3761	Management Information Systems	3
MGT 4810	Compensation and Performance Appraisal (spring term only)	4
BUS 3715	Principles of International Business	3
Management Upper Level Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
MGT 3789	Operations Management	3
MGT 4819	Selection, Training, and Development (fall term only)	4
HR Management Upper Level Course (internship recommended)		3
Management Upper Level Course		3

Non-Business Course		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
MGT 4844 & MGT 4845	Strategic Human Resource Management and Projects in Human Resource ManagementMGT 4844 (spring term only)	4
MGT 4850	Strategic Management and Leadership	3
Business Upper Level Course		3
Non-Business Course		3
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>120</b>

ENGL 1550, ENGL 1551, Business Tool and upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

To enroll in upper level business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.

## Learning Outcomes

Students will be able to:

- Identification and knowledge of HR functions.
- Understanding of employment and labor law.
- Creation of training plan.
- Ability to identify and critique selection methods.
- Ability to create a job and pay structure within an organization.
- Ensure HR practices are consistent w/ stratetegic goals of the org., dept., & other HR functions

# Bachelor of Science in Business Administration in Information and Supply Chain Management

Information & Supply Chain Management is the management of the flow of goods, services and data. It includes the movement and storage of raw materials, work-in-process inventory, and finished goods from point of origin to point of consumption. Interconnected or interlinked networks, channels and node businesses are involved in the provision of products and services required by end customers in a supply chain.

Students enrolled in the major will take courses in subjects such as product management, supply chain, logistics, information systems, managing individuals in organizations, and social media and e-commerce.

## CAREER OPPORTUNITIES

Career opportunities in the field of Information & Supply Chain Management are plentiful. All organizations and industries incorporate aspects of Information & Supply Chain Management. Organizations are looking for individuals who can analyze and coordinate systems that move products from supplier to consumer in a timely and cost efficient manner. Sample careers in the field in include: Planner or Analyst, Buyer, Inventory Specialist, Materials Planner, Transportation Coordinator, Traffic Analyst, Production Coordinator, Scheduler, Operations Planner, Management Consultant, Business Application Developer, IS/IT Manager, and Chief Information Officer.

All business majors are strongly encouraged to complete internships. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing

a career-related internship increases a student's job opportunities upon graduation.

## student experiences

Information & Supply Chain Management students at Youngstown State University have the opportunity to build their leadership skills through various WCBA student organizations (<http://www.ysu.edu/academics/williamson-college-business-administration/student-organizations-and-experiences>).

COURSE	TITLE	S.H.
<b>GENERAL EDUCATION</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
PHIL 2628	Business Ethics	3
CMST 1545	Communication Foundations	3
GE: Arts & Humanities		3
GE: Natural Sciences	One science course must include a Lab	7
GE: Social & Personal Awareness		6
<b>BUSINESS TOOL COURSES</b>		
Business Tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ENGL 3742	Business Writing	3
ECON 3790	Statistics for Business and Economics	5
<b>BUSINESS CORE REQUIREMENTS</b>		
To enroll in upper level business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses and have a minimum 2.5 overall GPA.		
Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MGT 4850	Strategic Management and Leadership	3
<b>INFORMATION &amp; SUPPLY CHAIN MANAGEMENT REQUIRED COURSES</b>		
CSIS 2610	Programming and Problem-Solving	4
CSIS 2620	System Configuration and Maintenance <sup>*formerly CSIS 3720</sup>	3
MGT 3750	Managing Individuals in Organizations	3
MGT 3771	Social Media and E-Commerce	3
MGT 4881	Project and Quality Management <sup>spring term only</sup>	3
MGT 5835	Systems Analysis and Design <sup>fall term only</sup>	3
MGT 5865	Database Management Systems <sup>spring term only</sup>	3
<b>SPECIALIZATION COURSES</b>		
Select a minimum of 6 SH from the approved spcialization list.		
<b>UPPER LEVEL BUSINESS COURSES</b>		<b>9</b>

Select 9 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG) and/or specialization courses.	
NON-BUSINESS COURSES	2
<b>Total Semester Hours</b>	<b>120</b>

SPECIALIZATION COURSE LIST

COURSE	TITLE	S.H.
<b>Required Courses</b>		
CSIS 3700	Data Structures and Objects	4
CSIS 3701	Advanced Object-oriented Programming	3
CSIS 3722	Development of Databases	3
CSIS 3723	Networking Concepts and Administration	3
CSIS 3726	Visual/Object-Oriented Programming	4
CSIS 3732	Intranet Database Implementation	3
CSIS 3782	Cisco Networking Academy 1	4
CSIS 3783	Cisco Networking Academy 2	4
CSIS 4822	Database Applications	3
INFO 3774	Multimedia Technology	4
INFO 3775	Multimedia Authoring	4
INFO 3776	Client-Side Scripting Techniques	4
INFO 3777	Computer Technology for Digital Image Processing	4
<b>Course Title S.H.</b>		
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
GE: Natural Science		3
GE: Arts & Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
ACCT 2602	Financial Accounting	3
PHIL 2628	Business Ethics	3
ENGL 3742	Business Writing	3
GE: Social & Personal Awareness		3
GE: Lab Science		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ECON 3790	Statistics for Business and Economics	5
MKTG 3702	Business Professionalism	1
GE: Social & Personal Awareness		3
<b>Semester Hours</b>		<b>13</b>
<b>Year 3</b>		
<b>Fall</b>		
MKTG 3703	Marketing Concepts and Practice	3
MGT 3761	Management Information Systems	3

MGT 3725	Fundamentals of Management	3
CSIS 2610	Programming and Problem-Solving	4
Non-business elective		2
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
FIN 3720	Business Finance	3
MGT 3750	Managing Individuals in Organizations	3
CSIS 2620	System Configuration and Maintenance formerly CSIS 3720	3
Upper Level Business Courses		6
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
BUS 3715	Principles of International Business	3
MGT 5835	Systems Analysis and Design <small>fall term only</small>	3
MGT 3771	Social Media and E-Commerce	3
MGT 3789	Operations Management	3
Specialization Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MGT 4850	Strategic Management and Leadership	3
MGT 4881	Project and Quality Management <small>spring term only</small>	3
MGT 5865	Database Management Systems <small>spring term only</small>	3
Specialization Course		3
Upper Level Business Course <small>internship recommended</small>		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

## Management Information Systems Specialization List

COURSE	TITLE	S.H.
<b>Required Courses</b>		
CSIS 3700	Data Structures and Objects	4
CSIS 3701	Advanced Object-oriented Programming	3
CSIS 3722	Development of Databases	3
CSIS 3723	Networking Concepts and Administration	3
CSIS 3726	Visual/Object-Oriented Programming	4
CSIS 3732	Intranet Database Implementation	3
CSIS 3782	Cisco Networking Academy 1	4
CSIS 3783	Cisco Networking Academy 2	4
CSIS 4822	Database Applications	3
INFO 3774	Multimedia Technology	4
INFO 3775	Multimedia Authoring	4
INFO 3776	Client-Side Scripting Techniques	4
INFO 3777	Computer Technology for Digital Image Processing	4

ENGL 1550, ENGL 1551, Busines Tool and upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG) must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

To enroll in upper level Business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.

## Learning Outcomes

1. To identify and apply concepts associated with utilizing internet-based strategies to increase awareness and market reach of organizations. (MGT 3771 E-Commerce)
2. To plan, design, and develop a web presence (e.g., website, social media) for an organization. (MGT 3771 E-Commerce)
3. To recognize and apply the fundamentals of managing projects, including the planning, scheduling, and controlling. (MGT 4881 Project Management)
4. To identify and apply concepts associated with System Development Life Cycle methodology. (MGT 5835)
5. The ability to construct Entity Relationship Diagrams. (MGT 5865)
6. The ability to use SQL to create, query, and update databases. (MGT 5865)

## Certificate in Leadership

Contact: Dr. Rebecca Badawy, Ph.D.

rbadawy@ysu.edu

The Certificate in Leadership provides YSU students with a broad understanding of leadership as a phenomenon and its impact on the organizational behavior of individuals and firm performance. The following courses are required:

COURSE	TITLE	S.H.
MGT 3725	Fundamentals of Management	3
MGT 4801	Leadership in Business and Society	3
MGT 3715	Employee Relations and Workplace Ethics	3
MGT 3755	Managing Workplace Diversity	3

Students interested in declaring a certificate in Leadership need to complete an Intra University Request form with their Academic Advisor. Students must meet all course prerequisites to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

## Learning Outcomes

- Identification and knowledge of leadership and management (how they are similar and different, and importance of both)
- Understand the impact of leadership styles on organizational performance
- Understand how leadership and diversity influence organizational effectiveness
- Understand and apply social influence principles

## Minor in Management Information Systems

Youngstown State University students are invited to enhance their educational experience with a minor in Management Information Systems. Management information Systems (MIS) provides information that organizations require to manage themselves efficiently and effectively; typically, computer systems are used for managing organizations. Students interested in learning more about the field of Management Information Systems through a minor would need to complete the following requirements:

COURSE	TITLE	S.H.
<b>Required Courses</b>		
BUS 1500	Exploring Business	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
Select three of the following:		9
MGT 3771	Social Media and E-Commerce	

MGT 3789	Operations Management	
MGT 4820	Supply Chain Management	
MGT 4821	Business Process Integration	
MGT 4881	Project and Quality Management	
MGT 5835	Systems Analysis and Design	
MGT 5865	Database Management Systems	
<b>Total Semester Hours</b>		<b>18</b>

If any of the above courses are part of the student's major, an alternate course needs to be substituted. Students interested in declaring a minor in Management Information Systems need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet all course prerequisites to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

## Minor in Management

Youngstown State University students are invited to enhance their educational experience with a minor in Management. Management in businesses and organizations is the function that coordinates the efforts of people to accomplish goals and objectives by using available resources efficiently and effectively. Management includes planning, organizing, staffing, leading or directing, and controlling an organization to accomplish the goal. A minor in Management can be met through completion of the following requirements:

COURSE	TITLE	S.H.
<b>Required Courses</b>		
BUS 1500	Exploring Business	3
MGT 3725	Fundamentals of Management	3
MGT 3750	Managing Individuals in Organizations	3
<b>Electives</b>		
Select three of the following:		9
MGT 3705	Fundamentals of Occupational Safety	
MGT 3715	Employee Relations and Workplace Ethics	
MGT 3755	Managing Workplace Diversity	
MGT 3771	Social Media and E-Commerce	
MGT 3789	Operations Management	
MGT 4801	Leadership in Business and Society	
MGT 4881	Project and Quality Management	
MGT 5835	Systems Analysis and Design	
MGT 5865	Database Management Systems	

**Total Semester Hours** **18**

Students interested in declaring a minor in Management need to complete an *Intra University Transfer Request* form with their academic advisor. Students pursuing a WCBA minor must meet all course prerequisites to enroll in WCBA courses, including a minimum overall GPA of a 2.5 for all upper division business courses. WCBA minor courses must be completed with the grade "C" or higher and cannot be taken credit/no credit.

## Department of Marketing

Bruce Keillor, Chair

(330) 941-3080

Marketing deals with processes that provide products and services to buyers with the goal of satisfying their needs and wants and developing ways to meet them. Marketing is the fundamental role of business—both for-profit and not-for-profit. Indeed, it was recently stated in the *Harvard Business Review* that, within the context of business, "marketing is everything." The success of an

organization's marketing determines the success of the organization. It is no wonder then that marketing is the central activity of business organizations in market economies.

Marketing addresses a number of business issues, including deciding what products to offer, to whom, at what price, and at what location. Marketing majors in the Williamson College of Business Administration (WCBA) enroll in a wide variety of courses that examine these areas in great detail to provide them with the tools and knowledge to succeed in the world of business. For those not majoring in marketing, the course offerings provide a knowledge of how businesses function and how other business operations, such as finance and management, provide the inputs necessary for successful decision making and strategy implementation.

Students can select one of two tracks in the Marketing major: Marketing Management and Sales Management.

## Learning Outcomes

- Recognize, analyze, and solve marketing and marketing-related problems.
- Apply appropriate technologies to solve marketing and marketing-related problems.
- Demonstrate effective oral and written communication skills.
- Identify and assess ethical and social responsibility issues.
- Demonstrate professional behavior in marketing and marketing-related situations.

For more information, visit the Department of Marketing. (<http://www.ysu.edu/academics/williamson-college-business-administration/marketing-major>)

### Chair

**Bruce Keillor**, Ph.D., Professor, Chair

### Professor

**Kendra Fowler**, Ph.D., Associate Professor

**Omer Genc**, Ph.D., Assistant Professor

**Peter A. Reday**, Ph.D., Associate Professor

**Christina Saenger**, Ph.D., Assistant Professor

**Doori Song**, Ph.D., Assistant Professor

**Emre Ulusoy**, Ph.D., Assistant Professor

**Ying Wang**, Ph.D., Associate Professor

### Instructor

**Joseph Angelo**, M.B.A., Instructor

**Laura J. Dewberry**, M.B.A., Instructor

**Michael Pontikos**, M.B.A., Instructor

**John Rossi**, M.B.A., Instructor

**Donna Walsh**, M.B.A., Instructor

## Majors

- Advertising and Public Relations (p. 591)
- Marketing: Management Track (p. 593)
- Marketing: Sales Management Track (p. 595)

## Minors

- Advertising and Public Relations Minor (p. 593)
- Marketing Minor (p. 593)

## Advertising

### ADV 3710 Basic Public Relations 3 s.h.

Study of the management function which investigates and evaluates public attitudes, policies, means, and techniques used in the field to earn public understanding and acceptance.

**Prereq.:** ENGL 1551 and GPA of 2.5.

### ADV 3711 Marketing Communications 3 s.h.

Examines the integration of promotional activities within a marketing context. Presents the marketing communication role of the four elements in the promotional mix then takes a holistic perspective that focuses on the interrelationships among advertising, public relations, sales promotion, and personal selling.

**Prereq.:** junior standing; 2.5 GPA.

### ADV 3711H Honors Marketing Communications 3 s.h.

Examines the integration of promotional activities within a marketing context. Presents the marketing communication role of the four elements in the promotional mix then takes a holistic perspective that focuses on the interrelationships among advertising, public relations, sales promotion, and personal selling.

**Prereq.:** Junior standing; 2.5 GPA.

### ADV 3712 Creative Strategies in IMC 3 s.h.

The creative process is related to the different message and graphic needs required in advertising, public relations, and sales promotion. Examines the synergistic possibilities of the separate efforts focused on the same creative strategy within an integrated marketing communications (IMC) campaign.

**Prereq.:** ADV 3711 and GPA of 2.5.

### ADV 3717 Media Planning and Buying 3 s.h.

Planning, executing, and controlling of media buys. Techniques of allocation of budget among print and electronic media explored on national, regional, and local levels familiarizing the student with syndicated media resources.

**Prereq.:** ADV 3711 and GPA of 2.5.

### ADV 4850 Advertising Internship 3 s.h.

Through employment with participating business organizations the student will receive professional advertising experience. Required paper on the relationship between advertising theory and practice.

**Prereq.:** MKTG 3703, 2.5 GPA.

### ADV 4855 IMC Campaigns 3 s.h.

Capstone course in the integrated marketing communications curriculum. By employing the fundamental theories and practices garnered from previous integrated marketing communications courses for a specific IMC problem, the focus is the development of an integrated marketing communications campaign.

**Prereq.:** ADV 3711, ADV 3712, ADV 3717 and GPA of 2.5.

### ADV 4899 Independent Study 3 s.h.

This course will allow students to develop a special topic of interest under the direct supervision of a marketing faculty member. The objective of this course is to provide the student with a strong understanding of a specific area of advertising.

**Prereq.:** ADV 3711; 2.5 GPA.

## Entrepreneurship

### ENT 3700 Entrepreneurship New Venture Creation 3 s.h.

An examination of the entrepreneurial process from opportunity recognition and assessment through the launch of the new firm. Emphasis placed on exploring creativity and innovation. Students will develop a feasible business idea, present the idea as an elevator pitch, and write a business proposal.

**Prereq.:** BUS 1500; sophomore standing; GPA 2.5.

**ENT 3750 Entrepreneurship-Small Business Financial Management 3 s.h.**

Practical application of accounting and finance concepts in small/new businesses. Emphasis on raising capital, understanding financial statements, implementing small business accounting software, and forecasting revenue, expenses, and cash flow.

**Prereq.:** ENT 3700 or FIN 3720; GPA 2.5.

**ENT 4800 Entrepreneurship-Business Plan Development 3 s.h.**

An in-depth study of the aspects of a successful business plan. An individual business plan will be developed by students based on the analysis of a viable business concept.

**Prereq.:** ENT 3700 and ENT 3750 or MGT 3725 and MKTG 3703 and FIN 3720; GPA 2.5.

**ENT 4850 Entrepreneurship Internship 3 s.h.**

The student is given the opportunity to relate theory to practice in an on-site field experience in a new venture or local small business. Student works 12-15 hours per week under direct supervision of company management and direct guidance of faculty advisor. A weekly journal and final report are required.

**Prereq.:** ENT 3700; ENT 3750; ENT 4800; GPA 2.5; Approval of Director.

**ENT 4851 Field Studies in Entrepreneurship 3 s.h.**

Students work with actual problems and opportunities faced by small businesses under faculty supervision. Problems/opportunities are defined, analyzed and researched. Recommendations are developed and presented to business owners for evaluation.

**Prereq.:** ENT 3700; ENT 3750; ENT 4800 or MGT 3725; MKTG 3703; FIN 3720; GPA 2.5.

## Marketing

**MKTG 1520 Selected Marketing Topics 1-3 s.h.**

Topics vary each semester. Subject matter and number of credit hours announced in advance of each offering. May be taken twice with change of topic.

**Prereq.:** permission of instructor.

**MKTG 3702 Business Professionalism 1 s.h.**

This course is intended to help students prepare for and accomplish a successful transition from college to a professional career. Students will be challenged to understand the various elements of business professionalism including etiquette, communications, image, conflict resolution, career exploration and job search.

**Prereq.:** BUS 1500; ACCT 2602; GPA of 2.5.

**MKTG 3702H Honors Business Professionalism 1 s.h.**

This course is intended to help students prepare for and accomplish a successful transition from college to a professional career. Students will be challenged to understand the various elements of business professionalism including etiquette, communications, image, conflict resolution, career exploration and job search.

**Prereq.:** BUS 1500; ACCT 2602; GPA of 2.5.

**MKTG 3703 Marketing Concepts and Practice 3 s.h.**

The activities involved in marketing products, services, and ideas examined within a framework of customer management. Topics include global marketing environment, market analysis and segmentation, consumer behavior, product development and management, pricing, promotion, and distribution. Marketing is examined from its role as a central function of business and non-profit organizations, and from its dominant role in a market economy.

**Prereq.:** BUS 1500 and junior standing.

**MKTG 3703H Honors Marketing Concepts Practice 3 s.h.**

The activities involved in marketing products, services, and ideas examined within a framework of customer management. Topics include global marketing environment, market analysis and segmentation, consumer behavior, product development and management, pricing, promotion, and distribution. Marketing is examined from its role as a central function of business and non-profit organizations, and from its dominant role in a market economy.

**Prereq.:** BUS 1500 and junior standing.

**MKTG 3709 Retail Marketing 3 s.h.**

Retailing is the largest industry and the dominant employer in the U.S. economy. The industry is explored, with particular emphasis on understanding the activities of retailers, both large and small. Topics include shopper behavior, store location, store layout, product presentation, and customer service. The criteria for success in retailing, the impact of technology on retailing, and the retail process examined within the larger domain of marketing. Beneficial to all marketing and business majors, as well as others engaged in shopping activities.

**Prereq.:** MKTG 3703 and GPA of 2.5.

**MKTG 3720 Industrial Marketing 3 s.h.**

Characteristics of Manufacturers' goods, channels of distribution, functions of intermediaries, distribution costs, marketing research, government control, and legal limitations. Product policies, service policies, packaging policies, price policies. Industrial advertising organization, planning and budgeting, uses of advertising agencies and national advertising media, sales manuals, dealer helps.

**Prereq.:** MKTG 3703 and GPA of 2.5.

**MKTG 3726 Consumer Behavior 3 s.h.**

Individual and group behavior as related to marketing Topics include the buyer as problem solver, buying decision processes and models, measurement of promotional effectiveness, and life style analysis.; May be taken concurrently with MKTG 3703.

Individual and group behavior as related to marketing **Prereq.:** GPA of 2.5.

**MKTG 3740 Professional Selling 3 s.h.**

Personal selling and sales management examined within the marketing environment. Emphasis on marketing relationships, buyer motivation and behavior, selling strategy and sales management techniques. 2.5 GPA.

**Prereq.:** BUS 1500 and sophomore standing.

**MKTG 3742 Organizational Purchasing 3 s.h.**

Examination of procurement and purchasing activities within the organization with a concentration on the multiple levels of supplier and customer relationships. Topics include current trends in procurement and sourcing, purchasing policy and procedures, supplier evaluation and selection, sourcing processes, and contract management.

**Prereq.:** MKTG 3703; 2.5 GPA.

**MKTG 3745 Sales and Account Management 3 s.h.**

The course provides an overview of sales and account management. Concepts covered include strategic planning, sales leadership, analyzing customer-client-buyer markets, and designing and developing a sales force.

**Prereq.:** MKTG 3703 and overall GPA of 2.5.

**MKTG 3747 Negotiations Concepts and Strategies 3 s.h.**

The purpose of this course is to understand the theory and processes of negotiation so that the student can successfully negotiate in a variety of professional settings.

**Prereq.:** MKTG 3703 and overall GPA 2.5.

**MKTG 3750 Product and Brand Management 3 s.h.**

New product development and brand creation process from idea generation to launch; diffusion of innovation and sales forecast of new product, market entry strategy, branding of new product, business plan for new product.

**Prereq.:** MKTG 3703 and 2.5 GPA.

**MKTG 4811 Interactive Marketing 3 s.h.**

In-depth investigation of interactive marketing including direct response marketing and other technology-based forms of business-customer interaction including measuring the effectiveness and the integration of interactive marketing activities into the overall marketing strategy.

**Prereq.:** MKTG 3703; GPA of 2.5.

**MKTG 4815 Marketing Research and Analytics 3 s.h.**

Introduction to the major areas of marketing research. Problem definition, research design, gathering information and analysis to assist marketing management with the decision making process. Emphasis will be placed on using data and information in an applied context.

**Prereq.:** MKTG 3703 and GPA of 2.5.

**MKTG 4825 Marketing Management 3 s.h.**

Comprehensive study of the management functions in marketing including organization, planning, research, merchandising, sales, advertising and promotion, marketing channels, and control related to corporate policies and objectives. Management practices covering recruiting, selection, training, equipping, compensating, and supervising.

**Prereq.:** MKTG 3703, MKTG 3726 and GPA of 2.5; May be taken concurrently with MKTG 4815.

**MKTG 4842 Special Topics in Marketing 1-3 s.h.**

Topics vary each semester. Subject matter, number of credits, and prerequisites announced in advance of each topic. No more than one Special Topic per semester is permitted. May be taken twice with change of topic.

**Prereq.:** Permission of Chairperson; 2.5 GPA; junior standing.

**MKTG 4842B Special Topics in Marketing: Enactus 1-3 s.h.**

Topics vary each semester. Subject matter, number of credits, and prerequisites announced in advance of each topic. No more than one Special Topic per semester is permitted. May be taken twice with change of topic.

**Prereq.:** Permission of Chairperson; 2.5 GPA; junior standing.

**MKTG 4845 International Marketing 3 s.h.**

Development of United States trade, foreign trade promotion, organization, export and import procedures and practices. Presented from the viewpoint of the international marketing manager who must recognize differences between markets in various countries as influenced by their particular cultural and economic environments.

**Prereq.:** MKTG 3703 and GPA of 2.5.

**MKTG 4846 Marketing Channels and Logistics 3 s.h.**

Consideration of the problems likely to arise in the planning for and movement of goods through channels of distribution from producer to end-user. Elements of the logistical system, including transportation modes, plant and warehouse location, and inventory size determinations. Behavioral and functional relationships with and between channel members in a supply chain.

**Prereq.:** MKTG 3703 and GPA of 2.5.

**MKTG 4849 Export Strategy 3 s.h.**

The student will learn how to manage and operate an export-based business. The focus will be on identifying local products, local companies, and an international opportunity to export by researching a specific market and working directly with a local firm.

**Prereq.:** MKTG 3703, GPA 2.5.

**MKTG 4850 Marketing Internship 3 s.h.**

Through employment with participating business organizations the student receives professional marketing experience. Candidates work for the entire semester at a local business organization under the direct guidance of a faculty advisor. Required paper at the end of the course on the relationship of marketing theory and practice.

**Prereq.:** MKTG 3703 and GPA of 2.5.

**MKTG 4851 Services Marketing 3 s.h.**

Cross-functional approach to the marketing of customer services in profit and non-profit organizations, including domestic and international opportunity analysis, customer analysis, financial analysis, strategy formulation, process and systems management, and quality improvement.

**Prereq.:** MKTG 3703 and GPA of 2.5.

**MKTG 4852 Advanced Marketing Internship 3 s.h.**

This course is an extension of MKTG 4850 Marketing Internship. It is designed to allow students to continue a current internship at a more advanced level or to engage in additional internship experience.

**Prereq.:** MKTG 4850; 2.50 GPA.

**MKTG 4853 Sales Internship 3 s.h.**

Through employment with a participating business organization the student receives professional sales experience. Candidates work for the entire semester at an approved business organization.

**Prereq.:** MKTG 3703 and GPA of 2.5.

**MKTG 4870 Small Business/Entrepreneurship 3 s.h.**

Study of the small business environment and the problems in starting a business. How small businesses apply the managerial functions in using their resources.

**Prereq.:** MKTG 3703.

**Cross-listed:** MGT 4870.

**MKTG 4871 Small Business Enterprise 3 s.h.**

Students work with actual problems faced by small businesses under faculty supervision. Problems are defined, analyzed, researched. Recommendations are developed and presented to clients for evaluation.

**Prereq.:** MKTG 3703.

**Cross-listed:** MGT 4871.

**MKTG 4899 Marketing Independent Study 1-3 s.h.**

This course will allow students to develop a topic of interest under the direct supervision of a marketing faculty member.

**Prereq.:** MKTG 3703 and 2.5 overall GPA.

## Bachelor of Science in Business Administration in Advertising and Public Relations

Advertising is the practice of producing information to promote the sale of products or services. Public Relations is the practice of creating and maintaining goodwill of an organization's public, such as customers, employees, investors, suppliers, and others. Professionals in advertising create and communicate advertising strategies, develop advertising campaigns, and promote and sell products, services and brands. Professionals in public relations work with organizations to maintain the public image of the organization through various forms of communications.

Advertising & Public Relations majors at Youngstown State University take courses in marketing communication, integrated marketing campaigns, media planning and buying, consumer behavior, and marketing research.

### career opportunities

Advertising and Public Relations professionals are involved in creating campaigns to convince consumers to purchase or use certain products. Campaigns are launched through a variety of means including television, billboards, and social media. The advertisements are created to enhance the public's perception and to get people excited about a product. Working in public relations generally entails the management of product perception, appearance of brochures, speeches, and crises for companies, non-profit organizations, and governments. Often advertising and public relations job responsibilities overlap thus the purpose of the Advertising/Public Relations major.

All business majors are strongly encouraged to complete internships. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

### student experiences

Advertising & Public Relations majors at Youngstown State University have the opportunity to build their leadership skills through various student organizations (http://www.yosu.edu/academics/williamson-college-business-administration/student-organizations-and-experiences).

COURSE	TITLE	S.H.
GENERAL EDUCATION		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3



PHIL 2628	Business Ethics	3
GE: Arts & Humanities		3
GE: Natural Sciences	One science course must include a lab	7
GE: Social & Personal Awareness		6
<b>BUSINESS TOOL COURSES</b>		
Business tool courses must be completed with the grade of a "C" or higher and CANNOT be taken credit/no-credit.		
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ENGL 3742	Business Writing	3
ECON 3790	Statistics for Business and Economics	5
<b>BUSINESS CORE REQUIRED COURSES</b>		
To enroll in upper level business courses student must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all business tool courses and have a minimum 2.5 overall GPA.		
Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MGT 4850	Strategic Management and Leadership	3
<b>ADVERTISING/PUBLIC RELATIONS REQUIRED COURSES</b>		
ADV 3710	Basic Public Relations	3
ADV 3711	Marketing Communications	3
ADV 3712	Creative Strategies in IMC	3
ADV 3717	Media Planning and Buying	3
ADV 4855	IMC Campaigns	3
MKTG 3726	Consumer Behavior	3
MKTG 4815	Marketing Research and Analytics	3
<b>ADVERTISING/PUBLIC RELATIONS COURSES</b>		
Select 6 SH of upper level MKTG or ADV courses.		
<b>UPPER LEVEL BUSINESS COURSES</b>		
Select 6 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MKTG, MGT)		
<b>NON-BUSINESS ELECTIVE</b>		
<b>Total Semester Hours</b>		<b>120</b>
<b>Course</b>	<b>Title</b>	<b>S.H.</b>
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
GE: Social and Personal Awareness		3
<b>Semester Hours</b>		<b>16</b>

<b>Spring</b>		
ENGL 1551	Writing 2	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
GE: Natural Science		3
GE: Arts & Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
ACCT 2602	Financial Accounting	3
CMST 1545	Communication Foundations	3
ENGL 3742	Business Writing	3
GE: Social & Personal Awareness		3
GE: Lab Science		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ECON 3790	Statistics for Business and Economics	5
PHIL 2628	Business Ethics	3
MKTG 3702	Business Professionalism	1
<b>Semester Hours</b>		<b>13</b>
<b>Year 3</b>		
<b>Fall</b>		
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
FIN 3720	Business Finance	3
ADV 3711	Marketing Communications	3
ADV 3710	Basic Public Relations (formerly PREL 3710)	3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MKTG 3726	Consumer Behavior	3
MKTG 4815	Marketing Research and Analytics	3
MGT 3761	Management Information Systems	3
BUS 3715	Principles of International Business	3
Upper Level Business Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
ADV 3712	Creative Strategies in IMC (fall term only)	3
ADV 3717	Media Planning and Buying (fall term only)	3
MGT 3789	Operations Management	3
Upper Level Business Course		3
Upper Level Advertising Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ADV 4855	IMC Campaigns (spring term only)	3
MGT 4850	Strategic Management and Leadership	3
Upper Level Advertising Course (internship recommended)		3
Non-Business Courses		6
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

ENGL 1550, ENGL 1551, Business Tool and upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

To enroll in upper level Business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.

*Learning Outcomes*

- Students will demonstrate knowledge and understanding of marketing communication theories and concepts.
- Students will demonstrate effective marketing communication skills.
- Students will develop skills to recognize, analyze and solve marketing communication/PR problems through critical thinking.
- Students will be able to apply learned knowledge and skills to develop a comprehensive integrated marketing communication campaign.

## Minor in Advertising and Public Relations

Youngstown State University students are invited to enhance their educational experience with a minor in Advertising/Public Relations. Advertising and public relations is the study of communications by organizations to their various audiences, public image and to a large extent sales. The minor in Advertising/Public Relations can be met by completing the following requirements:

COURSE	TITLE	S.H.
<b>Required Courses</b>		
ADV 3710	Basic Public Relations	3
ADV 3711	Marketing Communications	3
ADV 3712	Creative Strategies in IMC	3
ADV 4855	IMC Campaigns	3
<b>Advertising/Marketing Courses (6 SH)</b>		
Select two of the following:		6
ADV 3717	Media Planning and Buying	
MKTG 3740	Professional Selling	
MKTG 4811	Interactive Marketing	
<b>Total Semester Hours</b>		<b>18</b>

Students interested in declaring a minor in Advertising/Public Relations need to complete an *Intra University Transfer Request form* with their academic advisor. Students pursuing a WCBA minor must meet all course prerequisites to be eligible to register for a WCBA course, including a minimum overall GPA of a 2.5 for all upper division business courses. WCBA minor courses must be completed with the grade "C" or higher and cannot be taken credit/no credit.

## Minor in Marketing

Youngstown State University students are invited to enhance their educational experience with a minor in Marketing. Marketing deals with processes that provide products and services to buyers with the goal of satisfying their needs and wants. Students interested in learning more about the field of marketing through a minor would need to complete the following requirements:

COURSE	TITLE	S.H.
<b>Required Courses</b>		
BUS 1500	Exploring Business	3
MGT 2604	Legal Environment of Business 1	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
MKTG 3740	Professional Selling	3
<b>MARKETING COURSES</b>		6
Select 6 SH of upper level MKTG and/or ADV courses		
<b>Total Semester Hours</b>		<b>19</b>

Students interested in declaring a minor in Marketing need to complete an *Intra University Transfer Request form* with their academic advisor. Students must meet course prerequisites to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

## Bachelor of Science in Business Administration in Marketing: Management Track

The Marketing Management track of the Marketing major focuses on the strategic planning and assessment of marketing as well as management of marketing, sales, advertising, and public relations personnel in a business or other organization.

Marketing revolves around the product or service of the business, promotion of the product, price at which it is sold, and how it is distributed to the customer. Professionals in marketing create and communicate marketing strategies, develop marketing campaigns, and work with sales teams to sell products. The Marketing major offers two tracks for students to specialize in based upon their career goals.

### career opportunities

Marketing can be defined as being the intermediary function between product development and sales. There are many avenues in the field of marketing including advertising, public relations, media planning, sales strategy and more. Marketing professionals create, manage and enhance good, services and brands. The Marketing Management major at YSU prepares students for leadership positions in the field.

All business majors are strongly encouraged to complete internships. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

### student experiences

Marketing majors at Youngstown State University have the opportunity to build their leadership skills through various student various WCBA student organizations (<http://www.yzu.edu/academics/williamson-college-business-administration/student-organizations-and-experiences>).

COURSE	TITLE	S.H.
<b>GENERAL EDUCATION COURSES</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
PHIL 2628	Business Ethics	3
CMST 1545	Communication Foundations	3
GE: Arts and Humanities		3
GE: Natural Science <small>One science course must include a lab</small>		7
GE: Social and Personal Awareness		6
<b>BUSINESS TOOL COURSES</b>		
Business Tool courses MUST be completed with a grade of a "C" or higher and CANNOT be taken Credit/No Credit.		
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3

ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ENGL 3742	Business Writing	3
ECON 3790	Statistics for Business and Economics	5
<b>BUSINESS CORE COURSES</b>		
To enroll in upper level business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool course AND have a minimum 2.5 overall GPA.		
Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MGT 4850	Strategic Management and Leadership	3
<b>MARKETING MAJOR REQUIREMENTS</b>		
MKTG 3720	Industrial Marketing <sup>fall only</sup>	3
MKTG 3726	Consumer Behavior	3
MKTG 3750	Product and Brand Management <sup>spring term only</sup>	3
MKTG 4815	Marketing Research and Analytics	3
MKTG 4825	Marketing Management	3
<b>MARKETING UPPER LEVEL COURSES</b>		
Select 6 SH of upper level MKTG or ADV courses		
<b>BUSINESS UPPER LEVEL COURSES</b>		
Select 12 SH of upper level business courses (ADV, ACCT, ADV, BUS, ENT, MGT, MKTG)		
<b>NON-BUSINESS ELECTIVES</b>		
6		
<b>Total Semester Hours</b>		<b>120</b>

120 Hours for Degree

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
GE: Natural Science		3
GE: Arts & Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
ACCT 2602	Financial Accounting	3
PHIL 2628	Business Ethics	3
ENGL 3742	Business Writing	3
GE: Social & Personal Awareness		3

GE: Lab Science		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ECON 3790	Statistics for Business and Economics	5
MKTG 3702	Business Professionalism	1
GE: Social & Personal Awareness		3
<b>Semester Hours</b>		<b>13</b>
<b>Year 3</b>		
<b>Fall</b>		
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
Upper Level Business Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MKTG 3726	Consumer Behavior	3
MKTG 4815	Marketing Research and Analytics	3
MGT 3761	Management Information Systems	3
Upper Level Marketing Course		3
Upper Level Business Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 4</b>		
<b>Fall</b>		
MGT 3789	Operations Management	3
MKTG 4825	Marketing Management	3
MKTG 3720	Industrial Marketing	3
Upper Level Business Course		3
Non-Business Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
MGT 4850	Strategic Management and Leadership	3
MKTG 3750	Product and Brand Management	3
Upper Level Business Course		3
Upper Level Marketing/Advertising Course (internship recommended)		3
Non-Business Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

ENGL 1550, ENGL 1551, Business Tool and upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

To enroll in upper level business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.

#### Learning Outcomes

1. Students will demonstrate knowledge and understanding of the marketing mix.
2. Students will demonstrate effective business communication skills.
3. Students will be able to recognize, analyze, and solve marketing problems.

# Bachelor of Science in Business Administration in Marketing: Sales Track

Marketing revolves around the product or service of the business, promotion of the product, price at which it is sold, and how it is distributed to the customer. Professionals in marketing create and communicate marketing strategies, develop marketing campaigns, and work with sales teams to sell products. The Marketing major offers two tracks for students to specialize in based upon their career goals.

The sales track in Marketing prepares students for a career in professional, business-to-business selling. Careers in sales are some of the highest paid and most rewarding for new business graduates.

## career opportunities

Marketing Sales managers direct an organizations' sales of goods, products, and/or services. Sales jobs can be found in virtually every industry including wholesale and retail trade, manufacturing, and services industries. Employment of Sales Managers is expected to grow significantly within the next 10 years as new organizations develop and existing organizations expand.

All business majors are strongly encouraged to complete internships. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

## student experiences

Marketing majors at Youngstown State University have the opportunity to build their leadership skills through various student organizations (http://www.yсу.edu/academics/williamson-college-business-administration/student-organizations-and-experiences).

COURSE	TITLE	S.H.
<b>GENERAL EDUCATION</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
PHIL 2628	Business Ethics	3
CMST 1545	Communication Foundations	3
GE: Arts & Humanities		3
GE: Natural Sciences	One science course must include a lab	7
GE: Social & Personal Awareness		6
<b>BUSINESS TOOL COURSES</b>		
Business Tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ENGL 3742	Business Writing	3
ECON 3790	Statistics for Business and Economics	5
<b>BUSINESS CORE COURSES</b>		

Student must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses and have a minimum 2.5 cumulative GPA to enroll in upper level business courses.

Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MGT 4850	Strategic Management and Leadership	3
<b>MARKETING SALES MAJOR COURSES</b>		
MKTG 3726	Consumer Behavior	3
MKTG 3740	Professional Selling	3
MKTG 3742	Organizational Purchasing	3
MKTG 3745	Sales and Account Management	3
MKTG 3747	Negotiations Concepts and Strategies	3
MKTG 4815	Marketing Research and Analytics	3
MKTG 4825	Marketing Management	3
<b>BUSINESS UPPER LEVEL COURSES</b>		
Select 12 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MKTG, MGT). Students should consider at least one internship.		
<b>NON-BUSINESS COURSES</b>		6
<b>Total Semester Hours</b>		<b>120</b>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
GE: Natural Science		3
GE: Arts & Humanities		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
ACCT 2602	Financial Accounting	3
PHIL 2628	Business Ethics	3
ENGL 3742	Business Writing	3
GE: Social & Personal Awareness		3
GE: Lab Science		4
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ECON 3790	Statistics for Business and Economics	5
MKTG 3702	Business Professionalism	1

GE: Social & Personal Awareness	3
<b>Semester Hours</b>	<b>13</b>
<b>Year 3</b>	
<b>Fall</b>	
BUS 3715 Principles of International Business	3
FIN 3720 Business Finance	3
MKTG 3703 Marketing Concepts and Practice	3
MGT 3725 Fundamentals of Management	3
MKTG 3740 Professional Selling	3
<b>Semester Hours</b>	<b>15</b>
<b>Spring</b>	
MKTG 3726 Consumer Behavior	3
MKTG 4815 Marketing Research and Analytics	3
MGT 3761 Management Information Systems	3
Business Upper Level Course	3
Business Upper Level Course	3
<b>Semester Hours</b>	<b>15</b>
<b>Year 4</b>	
<b>Fall</b>	
MGT 3789 Operations Management	3
MKTG 4825 Marketing Management	3
MKTG 3745 Sales and Account Management	3
MKTG 3742 Organizational Purchasing	3
Business Upper Level Course	3
<b>Semester Hours</b>	<b>15</b>
<b>Spring</b>	
MGT 4850 Strategic Management and Leadership	3
MKTG 3747 Negotiations Concepts and Strategies	3
Business Upper Level Course (internship recommended)	3
Non-Business Course	3
Non-Business Course	3
<b>Semester Hours</b>	<b>15</b>
<b>Total Semester Hours</b>	<b>120</b>

ENGL 1550, ENGL 1551, Business Tool and upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

To enroll in upper level business courses students must have successfully complete ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.

#### Learning Outcomes

1. Students will demonstrate knowledge and understanding of the marketing mix.
2. Students will demonstrate effective business communication skills.
3. Students will be able to recognize, analyze, and solve marketing problems.

## Bachelor of Science in Business Administration in Business Economics

Tod Porter, Chair

(330) 941-3431

The Williamson College of Business Administration in cooperation with the Department of Economics in the College of Liberal Arts and Social Sciences

offers a Bachelor of Science in Business Administration degree with a major in Business Economics.

Economics provides critical decision-making tools in all areas of business. To the manager of a firm, microeconomics theory provides strategies on how to maximize profit, techniques for measuring how customers will respond to changes in price, and how the potential profitability of the firm will vary with the level of competition. Macroeconomics theory discusses why inflation, unemployment, and interest rates change. For a manager, an important issue is how the federal government may try to change the state of the economy and how that will alter business opportunities.

Business Economics majors at Youngstown State University take courses in intermediate microeconomic theory, intermediate macroeconomic theory and complete a capstone project involving data analysis. Business economics majors also take four upper division electives that introduce them to different specializations, such as international trade, money and banking, public finance, and labor markets.

### JOB OPPORTUNITIES

The Business Economics major prepares students for careers in corporate, government, and the nonprofit fields. Employers are looking for individuals with an understanding of the global economy and its connection to organizations, individuals and society. Business economists work for major corporations, investment firms and government agencies, gathering and analyzing critical information that can be used to react to fluctuating markets and business cycles. The job outlook for business economics is expected to grow due to the driven need for quantitative methods to analyze and forecast business, sales and other economic trends.

### STUDENT EXPERIENCES

Business Economics majors at Youngstown State University have the opportunity to build their knowledge and leadership skills in their field through various student leadership organizations such as Actuarial Science Club, Economics Club, Beta Gamma Sigma, Enactus, and the Student Investment Fund.

### 4 + 1 BACHELOR/MASTER PROGRAM

The accelerated "4+1" program allows students to earn the MA in Economics in one year after completing their bachelor's degree. Students pursuing the MA in Financial Economics can complete the degree in three semesters. Undergraduate students can apply to take graduate courses after completing 78 semester hours with a GPA of 3.3 or higher. Students can take a maximum of nine semester hours of graduate coursework that can count both toward a bachelor's degree and either the MA in Economics or the MA in Financial Economics. Students who successfully complete the master's courses are encouraged to apply for a graduate assistantship.

4 + 1 Bachelors/Master Program.

For more information, visit **Business Economics** (<http://www.yzu.edu/academics/college-liberal-arts-social-sciences/economics-major>).

COURSE	TITLE	S.H.
GENERAL EDUCATION COURSES		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
PHIL 2628	Business Ethics	3
CMST 1545	Communication Foundations	3
GE: Arts & Humanities		3
GE: Natural Sciences	One science course must include a lab	7
GE: Social & Personal Awareness		6
BUSINESS TOOL COURSES		
Business Tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		

BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management <small>Students interested in entering a graduate program in Economics should consider taking MATH 1571 Calculus 1</small>	4
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ENGL 3742	Business Writing	3
ECON 3790	Statistics for Business and Economics	5

**BUSINESS CORE COURSES**

To enroll in upper level business courses student must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool course AND have a minimum 2.5 overall GPA.

Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MGT 4850	Strategic Management and Leadership	3

**ECONOMICS MAJOR REQUIREMENTS**

ECON 3710	Intermediate Microeconomic Theory <small>spring term only</small>	3
ECON 3712	Intermediate Macroeconomic Theory <small>fall term only</small>	3
ECON 4880	Analysis of Economic Problems <small>fall term only</small>	3

**ECONOMICS UPPER LEVEL COURSES**

Select 12 SH of ECON upper level courses. 3 SH can including one of the following: ACCT 3711, MKTG 3709 or MKTG 3720.

**BUSINESS UPPER LEVEL COURSES**

Select 9 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG)

**NON-BUSINESS ELECTIVES**

**Total Semester Hours** 120

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
GE: Natural Science		3
GE: Arts & Humanities		3
<b>Semester Hours</b>		<b>15</b>

**Year 2**

**Fall**

ACCT 2602	Financial Accounting	3
PHIL 2628	Business Ethics	3
ENGL 3742	Business Writing	3
GE: Social & Personal Awareness		3
GE: Lab Science		4

**Semester Hours** 16

**Spring**

ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ECON 3790	Statistics for Business and Economics	5
MKTG 3702	Business Professionalism	1
GE: Social & Personal Awareness		3

**Semester Hours** 13

**Year 3**

**Fall**

ECON 3712	Intermediate Macroeconomic Theory	3
MKTG 3703	Marketing Concepts and Practice	3
FIN 3720	Business Finance	3
BUS 3715	Principles of International Business	3
Non-Business Elective		3

**Semester Hours** 15

**Spring**

ECON 3710	Intermediate Microeconomic Theory	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
Upper Level Business Course		3
Upper Level Economics Course		3

**Semester Hours** 15

**Year 4**

**Fall**

ECON 4880	Analysis of Economic Problems	3
MGT 3789	Operations Management	3
Upper Level Business Course		3
Upper Level Economics Courses		6

**Semester Hours** 15

**Spring**

MGT 4850	Strategic Management and Leadership	3
Upper Level Economics Course		3
Upper Level Business Course		3
Non-Business Courses		6

**Semester Hours** 15

**Total Semester Hours** 120

ENGL 1550, ENGL 1551, Business Tool and upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

To enroll in upper level business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.

## BSBA International Business (ICP)

WCBA Student Services

(330) 941-2376

## INTERNATIONAL BUSINESS (ICP)

The Williamson College of Business Administration offers an Individualized Curriculum Program (ICP) in International Business. This major utilizes the core functional areas (management, marketing, finance, accounting, etc.) of any business or organization to conduct business internationally. Virtually all businesses deal with international suppliers, buyers, or other parties. The International Business major allows students the education and experiences of conducting business with organizations from multiple countries around the globe. This program prepares students to enter a global market and leads to jobs such as import/export agent, translator, foreign currency investment advisor, foreign sales representative, and international management consultant.

## Student Leadership Opportunities

Students studying International Business at Youngstown State University have the opportunity to build their knowledge and leadership skills through various student leadership organizations such as Beta Gamma Sigma, Enactus, Student Investment Fund, Student Leadership Council, and Student Nonprofit Leadership Organization.

## Global Learning Experiences

The Williamson Center for International Business offers short-term study trips lasting approximately 10 days. These are typically offered during class break periods (winter and spring break). WCBA short-term trips have included destinations such as Ireland, London, The Czech Republic and China. Students receive three credit hours of course work that can be applied to their degree requirements.

Youngstown State University's International Studies and Programs offers a wide variety of semester long international study experiences. Study Abroad programs allow a student to live in a foreign country and attend a foreign university. Students are immersed in the culture through the learning experience. WCBA students have studied for a semester at various locations around the world including Italy, Africa, Australia, England, Brazil and Germany.

COURSE	TITLE	S.H.
<b>GENERAL EDUCATION COURSES</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
PHIL 2628	Business Ethics	3
CMST 1545	Communication Foundations	3
REL 2601	Introduction to World Religions Awareness	3
GE: Arts & Humanities		
GE: Arts & Humanities		3
GE: Natural Sciences <small>One science course must include a lab</small>		
GE: Natural Sciences		7
GE: Social and Personal Awareness		
GE: Social and Personal Awareness		3
<b>BUSINESS TOOL COURSES</b>		
Business Tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ENGL 3742	Business Writing	3
ECON 3790	Statistics for Business and Economics	5
<b>BUSINESS CORE COURSES</b>		

To enroll in upper level business courses student must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses and have a minimum 2.5 overall GPA.

Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MGT 4850	Strategic Management and Leadership	3
<b>INTERNATIONAL BUSINESS CORE COURSES</b>		<b>15</b>

Select 15 SH from the following:

BUS 4860	International Business Internship	
BUS 4875	International Business Field Study Tour	
BUS 4881	Special Topics in Business	
BUS 4888	The International Business Consulting Practicum	
ECON 5811	International Trade	
ECON 5812	International Finance	
FIN 4839	International Accounting and Finance	
MGT 3755	Managing Workplace Diversity	
MKTG 4849	Export Strategy	
MGT 4820	Supply Chain Management	
MKTG 4845	International Marketing	
MKTG 4846	Marketing Channels and Logistics	
MKTG 4851	Services Marketing	

**FUNCTIONAL CORE REQUIREMENTS** 12

Select 12 SH from one of the following areas: ACCT, FIN, MGT, MKTG OR ECON

**UPPER-LEVEL BUSINESS COURSES** 6

Select 6 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG)

**NON-BUSINESS COURSES** 6

**Total Semester Hours** 120

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
GE: Natural Science Course		3
GE: Arts & Humanities Course		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
ACCT 2602	Financial Accounting	3
PHIL 2628	Business Ethics	3

ENGL 3742	Business Writing	3
REL 2601	Introduction to World Religions <small>GE: Social &amp; Personal Awareness</small>	3
GE: Lab Science		4
<b>Semester Hours</b>		<b>16</b>

**Spring**

ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ECON 3790	Statistics for Business and Economics	5
MKTG 3702	Business Professionalism	1
GE: Social & Personal Awareness		3
<b>Semester Hours</b>		<b>13</b>

**Year 3****Fall**

MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
BUS 3715	Principles of International Business	3
International Business Course (BUS 4875 OR ECON 5811)		3
Functional Core Course		3
<b>Semester Hours</b>		<b>15</b>

**Spring**

FIN 3720	Business Finance	3
MGT 3761	Management Information Systems	3
International Business Course (BUS 4875, MGT 3755, MKTG 4845, MKTG 4846)		3
Business Upper Level Course		3
Functional Core Course		3
<b>Semester Hours</b>		<b>15</b>

**Year 4****Fall**

MGT 3789	Operations Management	3
International Business Core Course (BUS 4860, BUS 4875, ECON 5811, FIN 4839, MGT 3755, MKTG 4845, MKTG 4849)		3
Functional Core Course		3
Business Upper Level Course (internship recommended)		3
Non-Business Elective		3
<b>Semester Hours</b>		<b>15</b>

**Spring**

MGT 4850	Strategic Management and Leadership	3
International Business Core Course (BUS 4875, MGT 3755, MGT 4820, MKTG 4845, MKTG 4846, MKTG 4851)		3
International Business Core Course (BUS 4875, MGT 3755, MGT 4820, MKTG 4845, MKTG 4846, MKTG 4851)		3
Functional Core Course		3
Non-Business Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>120</b>

ENGL 1550, ENGL 1551, Business Tool and upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

To enroll in upper level business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.

## WCBA Associate Degrees Majors

- Associate in Arts in Business Administration (p. 599)
- Associate of Technical Study - Business Technology (p. 600)

## Associate of Arts in Business Administration

The Williamson College of Business Administration offers an Associate of Arts in Business Administration that incorporates some general education courses, the business tool courses, and some upper level business courses. This degree is often pursued by individuals already in the workforce wanting to enhance their knowledge and skills in the field of business, often leading to promotion and/or salary increase. The courses taken in the Associate of Arts in Business Administration can all be applied to the Bachelor of Science in Business Administration.

### CAREER OPPORTUNITIES

An Associate degree in business can prepare students for some entry-level jobs in retail, office administration, bookkeeping, and trade work. The most common careers for individuals earning an AABA degree is in the area of office administration and support. Office administration assistants can be found in a wide array of organizations including corporations, small business centers, government agencies, and nonprofit organizations.

### STUDENT EXPERIENCES

Students enrolled in the Associate of Arts in Business Administration have the opportunity to build their knowledge and leadership skills in their field through various student leadership organizations including the American Marketing Association, Advertising Club, Pi Sigma Epsilon, Society for Human Resource Management (SHRM), Enactus, and the Student Nonprofit Leadership Organization.

COURSE	TITLE	S.H.
<b>GENERAL EDUCATION COURSES</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
PHIL 2628	Business Ethics	3
CMST 1545	Communication Foundations	3
GE: Arts & Humanities		3
GE: Natural Science	<small>One Science must include a lab</small>	7
<b>BUSINESS TOOL COURSES</b>		
Business Tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
ENGL 3742	Business Writing	3
ECON 3790	Statistics for Business and Economics	5
<b>BUSINESS CORE COURSES</b>		

To enroll in upper level business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses and have a minimum 2.5 overall GPA.



Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

MGT 3725	Fundamentals of Management	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3

**Total Semester Hours 60**

Course	Title	S.H.
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**Year 1**

**Fall**

ENGL 1550	Writing 1	3
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
CMST 1545	Communication Foundations	3
ECON 2610	Principles 1: Microeconomics	3

**Semester Hours 16**

**Spring**

ENGL 1551	Writing 2	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
GE: Natural Science		3

**Semester Hours 15**

**Year 2**

**Fall**

ECON 3790	Statistics for Business and Economics	5
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
PHIL 2628	Business Ethics	3
ENGL 3742	Business Writing	3

**Semester Hours 15**

**Spring**

MGT 3725	Fundamentals of Management	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
GE: Arts & Humanities		3
GE: Lab Science		4

**Semester Hours 14**

**Total Semester Hours 60**

ENGL 1550, ENGL 1551, Business Tool and upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

To enroll in upper level business courses students must have successfully completed ENGL 1550, ENGL 1551, PHIL 2628, CMST 1545, all Business Tool courses AND have a minimum 2.5 overall GPA.

## Associate of Technical Study in Business Technology

The Associate of Technical Study - Business Technology program is designed to provide an opportunity for individuals who have completed documented vocational or technical training to earn academic credit for the training and combine this with academic coursework at the college level to earn an Associate of Technical Study degree.

Students must be enrolled in or have successfully completed a course of technical training that has already been evaluated by YSU. Students may be awarded no more than 30 hours for previous documented technical training.

COURSE	TITLE	S.H.
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GENERAL EDUCATION REQUIREMENTS

ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
English Literature Course		3

BUSINESS COURSE 3

Select one of the following: ECON 2630, ECON 3790, MGT 3725 or PHIL 2628. Note student must have a 2.5 GPA to enroll in MGT 3725.

BUSINESS TOOL COURSES ENGL 1550, ENGL 1551 and all Business Tool courses MUST be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
MGT 2604	Legal Environment of Business 1	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4

ATS CURRICULUM 30

**Total Semester Hours 65**

**Maximum of thirty (30) semester hours may be granted to individuals who have completed four years of apprenticeship/journeyman training. Apprenticeships must have the approval of the Bureau of Apprenticeship and Training in the U.S. Department of Labor. In addition, students must successfully complete a minimum of 35 semester hours of course work selected in accordance with the ATS curriculum**

Course	Title	S.H.
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**Year 1**

ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
BUS 1500	Exploring Business	3
MATH 1552	Applied Mathematics for Management	4
ECON 2610	Principles 1: Microeconomics	3
CMST 1545	Communication Foundations	3

**Semester Hours 19**

**Year 2**

MGT 2604	Legal Environment of Business 1 (English Literature Elective)	3
ACCT 2602	Financial Accounting	3
ACCT 2603 & 2603L	Managerial Accounting and Managerial Accounting Spreadsheet Lab	4
English Literature Course		3
Business Course		3

Select ONE of the following courses: ECON 2630, ECON 3790, MGT 3725 or PHIL 2628

To enroll in MGT 3725 students must be completed with ENGL 1550, ENGL 1551, CMST 1545 and all Business Tool courses AND have a minimum 2.5 overall GPA.

**Semester Hours 16**

**Total Semester Hours 35**

## Certificate/Minor in Entrepreneurship

Contact:

Joe Angelo

jfangelo@ysu.edu

The certificate and minor in Entrepreneurship are designed to provide a broad-based understanding of the entrepreneurial process and the unique problems and challenges faced by new ventures. In recognition of the broad spectrum of start-up concepts, these programs, while housed in the Williamson College of Business Administration, are open to students of all disciplines.

The certificate and minor are designed to serve students who are interested in starting their own company. Innovation, creativity, and opportunity recognition are critical skills necessary for anyone entering the marketplace. Learning these entrepreneurial skills will prepare one for the diverse and ever-changing opportunities that exist throughout the world of business.

### Certificate in Entrepreneurship

COURSE	TITLE	S.H.
Required Courses		
BUS 1500	Exploring Business	3
ENT 3700	Entrepreneurship New Venture Creation	3
ENT 3750	Entrepreneurship-Small Business Financial Management	3
ENT 4800	Entrepreneurship-Business Plan Development	3
<b>Total Semester Hours</b>		<b>12</b>

### Minor in Entrepreneurship

COURSE	TITLE	S.H.
BUS 1500	Exploring Business	3
ENT 3700	Entrepreneurship New Venture Creation	3
ENT 3750	Entrepreneurship-Small Business Financial Management	3
ENT 4800	Entrepreneurship-Business Plan Development	3
<b>Select two of the following:</b>		<b>6</b>
ENT 4850	Entrepreneurship Internship	
ENT 4851	Field Studies in Entrepreneurship	
ACCT 1503	Elementary Accounting	
ACCT 2602	Financial Accounting	
MGT 2604	Legal Environment of Business 1	
MKTG 3703	Marketing Concepts and Practice	
MGT 3725	Fundamentals of Management	
<b>Total Semester Hours</b>		<b>18</b>

Students interested in declaring a certificate or minor in Entrepreneurship need to complete and *Intra University Transfer Request* form with their academic advisor. Student must meet course prerequisites to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA courses must be completed with the grade of "C" or higher and cannot be taken credit/no credit.

### Minor in International Business

Youngstown State University students are invited to enhance their educational experience with a minor in International Business. International Business studies activities involve cross border transactions of goods, services and resources between two or more nations. A minor in International Business can be met through successful completion of the following requirements:

COURSE	TITLE	S.H.
<b>REQUIRED COURSES</b>		
BUS 3715	Principles of International Business	3
FIN 4839	International Accounting and Finance	3
MKTG 4845	International Marketing	3
REL 2601	Introduction to World Religions	3
<b>INTERNATIONAL BUSINESS COURSES</b>		
Select two of the following:		<b>6</b>
BUS 4875	International Business Field Study Tour	
BUS 4888	The International Business Consulting Practicum	
MKTG 3709	Retail Marketing	
MKTG 4851	Services Marketing	
MKTG 4849	Export Strategy	

**Total Semester Hours**

**18**

NOTE: Students interested in declaring a minor in International Business need to complete an *Intra University Transfer Request* form with their academic advisor. Students pursuing a WCBA minor must meet all course prerequisites to enroll in a WCBA course, including a minimum overall GPA of a 2.5 for upper division business courses. WCBA minor courses must be completed with the grade "C" or higher and cannot be taken credit/no credit.

### Minor in Business (for Non-Business Major)

Youngstown State University students are invited to enhance their educational experience with a minor in Business. The minor can be met through successful completion of the following requirements:

COURSE	TITLE	S.H.
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
FIN 3720	Business Finance	3
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3771	Social Media and E-Commerce	3
or MGT 3789	Operations Management	
If any of the courses noted previously on this document are part of the students' major, the student must substitute an alternate course from the following list:		
ACCT 3711	Cost Accounting	
MGT 3750	Managing Individuals in Organizations	
MKTG 3740	Professional Selling	
<b>Total Semester Hours</b>		<b>21</b>

NOTE: Students interested in declaring a minor in Business need to complete an *Intra University Transfer Request* form with their academic advisor. Students pursuing a WCBA minor must meet all course pre-requisites to enroll in WCBA courses, including a minimum overall GPA of a 2.5 for upper division business courses. WCBA courses must be completed with the grade "C" or higher and cannot be taken credit/no credit.

## The Entrepreneurship Center

### THE ENTREPRENEURSHIP CENTER

The Entrepreneurship Center supports students at YSU interested in entrepreneurship. Through the Entrepreneurship Center students can participate in competitions, receive support to pursue their entrepreneurial dream, network with entrepreneurs, and participate in the professional

student organization, Enactus. The WCBA offers a minor and certificate in Entrepreneurship which are available to students in any major at YSU.

## Entrepreneurship Minor

Youngstown State University students can enhance their educational experience by completing a minor in Entrepreneurship. The minor is designed to help students understand the entrepreneurial process and the unique problems and challenges faced by entrepreneurs. The minor in Entrepreneurship can be met by completing the following requirements:

COURSE	TITLE	S.H.
BUS 1500	Exploring Business	3
ENT 3700	Entrepreneurship New Venture Creation	3
ENT 3750	Entrepreneurship-Small Business Financial Management	3
ENT 4800	Entrepreneurship-Business Plan Development	3
Entrepreneurship Minor Courses		6
Select 6 SH from the following courses:		
ACCT 1503	Elementary Accounting	3
or ACCT 2602	Financial Accounting	
ENT 4850	Entrepreneurship Internship	3
ENT 4851	Field Studies in Entrepreneurship	3
MGT 2604	Legal Environment of Business 1	3
MKTG 3703	Marketing Concepts and Practice	3
MGT 3725	Fundamentals of Management	3

Students interested in declaring a minor in Entrepreneurship need to complete an Intra University Transfer Request form with their academic advisor. Students pursuing a WCBA minor must meet all course prerequisites, including a minimum 2.5 overall GPA to enroll in upper level business courses.

WCBA courses must be successfully completed with the grade of a "C" or higher and cannot be taken credit/no credit.

## Entrepreneurship Certificate

A certificate in Entrepreneurship is designed to provide a broad base understanding of the entrepreneurial process and the unique problems and challenges faced by new ventures. The certificate in Entrepreneurship can be met by completing the following requirements:

COURSE	TITLE	S.H.
BUS 1500	Exploring Business	3
ENT 3700	Entrepreneurship New Venture Creation	3
ENT 3750	Entrepreneurship-Small Business Financial Management	3
ENT 4800	Entrepreneurship-Business Plan Development	3

Students interested in declaring a certificate in Entrepreneurship need to complete an Intra University Transfer Request form with their Academic Advisor. Students must meet all course prerequisites to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper level business courses.

WCBA courses must be successfully completed with the grade of a "C" or higher and cannot be taken credit/no credit.

For more information, visit **The Entrepreneurship Center** (<http://cms.ysu.edu/entrepreneurship-center/entrepreneurship-center>).

## Center for Nonprofit Leadership

The Center for Nonprofit Leadership, housed in the Williamson College of Business Administration, provides academic programming and professional development experiences for students interested in pursuing a career in nonprofit management and/or serving the community. The Center offers a

certificate and minor in Nonprofit Leadership. Both the minor and certificate can be combined with any major on campus. The nonprofit sector offers a wide range of employment opportunities in many different professional disciplines as well as the opportunity to "make a living, making a difference."

Also available through the Center for Nonprofit Leadership is the Student Nonprofit Leadership Organization (SNLO). SNLO is an organization for currently enrolled students receiving a baccalaureate degree. The organization provides professional nonprofit management experiences through site visits, community service projects, guest lecturers, case study exercises, and the planning of fundraising events.

## Nonprofit Leadership Minor

The Nonprofit Leadership minor is geared to any YSU student seeking a four-year degree who is interested in beginning a career in the nonprofit sector and/or serving the community. The minor in Nonprofit Leadership can be earned through successful completion of the following courses:

COURSE	TITLE	S.H.
BUS 3720	Nonprofit Leadership	3
BUS 3780	Financial Management and Fundraising for Nonprofit Organizations	3
ADV 3710	Basic Public Relations	3
MGT 3755	Managing Workplace Diversity	3
MGT 3725	Fundamentals of Management	3
BUS 3740	Nonprofit Community Service 1	1
BUS 4840	Nonprofit Leadership Internship (or 3 SH internship course in students' major)	3
BUS 4841	Nonprofit Leadership Seminar	1

All students seeking the Nonprofit Leadership minor must complete a 225-hour internship in a regional nonprofit organization.

Academic credit is given for the internship through enrollment in BUS 4840 Nonprofit Leadership Internship and BUS 4841 Nonprofit Leadership Seminar (listed above). A student can enroll in these two courses during the fall, spring, or summer semester.

**Total Semester Hours** 20

## Certificate in Nonprofit Leadership

The Certificate in Nonprofit Leadership prepares students for an entry-level position in a nonprofit organization. The following courses are required for the Certificate in Nonprofit Leadership:

COURSE	TITLE	S.H.
ADV 3710	Basic Public Relations	3
BUS 3720	Nonprofit Leadership	3
BUS 3740	Nonprofit Community Service 1	1
BUS 3780	Financial Management and Fundraising for Nonprofit Organizations	3
MGT 3725	Fundamentals of Management	3

**Total Semester Hours** 13

Students interested in declaring a minor or certificate in Nonprofit Leadership need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet all course prerequisites to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

For more information contact **Laura Dewberry** ([ljedewberry@ysu.edu](mailto:ljedewberry@ysu.edu)), **Director, Center for Nonprofit Leadership**

## Learning Outcomes

### Certificate in Nonprofit Leadership

- Evaluate the management of regional nonprofit organizations through the use of case studies.
- Analyze the use of financial information in the management of a nonprofit organization.
- Apply the important role fundraising plays in a nonprofit organization and the various revenue sources sought by nonprofit organizations.
- Understanding of societal needs and how a nonprofit organization meets those needs on a local, national, and/or global level.
- Understanding of basic nonprofit management principles including strategic planning, human resource planning, risk management, and the role of marketing/communications.
- Explore paid and volunteer positions available in the nonprofit sector.
- Create a professional network of nonprofit professionals regionally and beyond.

## Center of Excellence in International Business

The Williamson College of Business Administration (WCBA) Center of Excellence in International Business integrates the strong and varied international business activities of the Williamson College of Business Administration, the Williamson Center for International Business (WCIB), the Ohio Small Business Development Center, and the International Trade Network to accelerate the attainment of goals related to international business education, research in international business, and regional economic development.

The goals of the WCBA Center of Excellence in International Business (CEIB) are designed to advance our work in teaching, scholarship, and outreach services and bring increased impact through the integration of global business issues across the curriculum and in the business community.

For more information, visit the Center of Excellence in International Business (<http://www.yzu.edu/academics/williamson-college-business-administration/centers>).

## The Ohio Small Business Development Center at Youngstown State University

### The Ohio Small Business Development Center (SBDC) and Export Assistance Network (EAN) at Youngstown State University

For over thirty years, the Ohio Small Business Development Center at YSU has accelerated business growth, helped to create jobs and contributed to the economy by providing consulting and training to existing companies and new start-ups. Through its Export Assistance Network, the Center also helps companies with initiating or expanding international trade and exporting opportunities to compete in the global marketplace.

The SBDC leverages its expertise and network of resources through student interns & graduate assistants working at the Center and student/faculty class projects in the Williamson College of Business Administration. The SBDC and EAN are among the premier economic development agencies in the area, and offer services that include:

- strategic business planning
- financial modeling & analysis
- cash flow forecasting
- strategic sales & market planning

- loan proposal development
- export and international trade consulting
- customized domestic & international trade market research
- business & exporting seminars

The SBDC is partially funded through the U.S. Small Business Administration and the Ohio Development Services Agency, and is part of a network of Centers throughout the country.

For more information, visit: **The Ohio Small Business Development Center and Export Assistance Network at Youngstown State University.**

## Certificate/Minor in Nonprofit Leadership

### Nonprofit Leadership Minor

The Nonprofit Leadership minor is geared to any YSU student seeking a four-year degree who is interested in beginning a career in the nonprofit sector and/or serving the community. The minor in Nonprofit Leadership can be earned through successful completion of the following courses:

COURSE	TITLE	S.H.
BUS 3720	Nonprofit Leadership	3
BUS 3780	Financial Management and Fundraising for Nonprofit Organizations	3
ADV 3710	Basic Public Relations	3
MGT 3755	Managing Workplace Diversity	3
MGT 3725	Fundamentals of Management	3
BUS 3740	Nonprofit Community Service 1	1
BUS 4840	Nonprofit Leadership Internship	3
BUS 4841	Nonprofit Leadership Seminar	1
<b>Total Semester Hours</b>		<b>20</b>

All students seeking the Nonprofit Leadership minor must complete a 225 hour internship in a regional nonprofit organization.

Academic credit is given for the internship through enrollment in BUS 4840 and BUS 4841 (listed above). A student can enroll in these two courses during the fall, spring or summer semester.

## Certificate in Nonprofit Leadership

The Certificate in Nonprofit Leadership prepares students for an entry-level position in a nonprofit organization. The following courses are required for the Certificate in Nonprofit Leadership:

COURSE	TITLE	S.H.
ADV 3710	Basic Public Relations	3
BUS 3720	Nonprofit Leadership	3
BUS 3740	Nonprofit Community Service 1	1
BUS 3780	Financial Management and Fundraising for Nonprofit Organizations	3
MGT 3725	Fundamentals of Management	3
<b>Total Semester Hours</b>		<b>13</b>

Students interested in declaring a minor or certificate in Nonprofit Leadership need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet all course prerequisites to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

**For more information contact Laura Dewberry ([ljdewberry@ysu.edu](mailto:ljdewberry@ysu.edu)), Director,  
Center for Nonprofit Leadership**

# GRADUATE CATALOG

Youngstown State University Catalog  
Graduate Edition  
2017–2018

## Effective August 2017 Youngstown, Ohio

Youngstown State University reserves the right to change without notice any statement in this catalog concerning, but not limited to, rules, policies, tuition, fees, curricula, and courses.

Youngstown State University is committed to a campus environment that values all individuals and groups, and to nondiscrimination and equal opportunity for all persons. Youngstown State does not discriminate on the basis of race, color, national origin, sex sexual orientation, gender identity and/or expression, disability, age, religion or veteran/military status. Please visit [www.yzu.edu/ada-accessibility](http://www.yzu.edu/ada-accessibility) (<http://cms.yzu.edu/accessibility/electronic-information-technology-%E2%80%9Ceit%E2%80%9Daccessibility-compliance>) for contact information for persons designated to handle questions about this policy.

Inquiries regarding discrimination or harassment should be addressed to Youngstown State University's director of Equal Opportunity and Policy Compliance at (330) 941-2340.

Youngstown State University  
Graduate Catalog

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College of Graduate Studies  
Youngstown State University  
One University Plaza  
Youngstown, OH 44555

## College of Graduate Studies

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## Ohio Department of Higher Education

The Ohio Department of Higher Education (<https://www.ohiohighered.org/board>) is a Cabinet-level agency for the Governor of the State of Ohio that oversees higher education for the state.

The Ohio Board of Regents, a nine-member advisory board to the chancellor with two ex-officio representatives from the state legislature, was created in 1963 by the General Assembly. Members of the Board of Regents are appointed by the governor with the advice and consent of the senate.

Responsibilities of the board include developing an independent annual report on the Condition of Higher Education in the state of Ohio and issuing an annual performance review of the chancellor. The board is also responsible for advising the chancellor on issues of statewide importance affecting higher education.

Member	Term Expires
Chancellor John Carey (ex-officio)	<a href="https://www.ohiohighered.org/chancellor-john-carey">https://www.ohiohighered.org/chancellor-john-carey</a>

Thomas Humphries, Vice Chair	<a href="https://www.ohiohighered.org/node/2185">https://www.ohiohighered.org/node/2185</a>	2018
Kurt Kaufman	<a href="https://www.ohiohighered.org/node/2319">https://www.ohiohighered.org/node/2319</a>	2018
Sen. Peggy Lehner (ex-officio)	<a href="http://www.ohiohighered.org/node/161">http://www.ohiohighered.org/node/161</a>	
Rep. Andrew Brenner (ex-officio)	<a href="https://www.ohiohighered.org/content/rep_andrew_brenner">https://www.ohiohighered.org/content/rep_andrew_brenner</a>	

## University Administration

### University Board of Trustees

University Board of Trustees	Term Expires
Leonard D. Schiavone, Chair	2018
Delores E. Crawford, Vice Chair	2019
David C. Deibel	2020
Anita A. Hackstedde	2021
James E. "Ted" Roberts	2022
John R. Jakubek	2023
Samuel W. Grooms	2025
Allan Metz, Student Trustee	2018
Franklin S. Bennett Jr., Secretary	Not a Trustee

### Executive Level

Executive Level	Position
James P. Tressel, MA	President
Martin A. Abraham, PhD	Provost and Vice President for Academic Affairs
Holly A. Jacobs, JD	Vice President and General Counsel
Neal P. McNally, MPA	Vice President for Finance and Business Operations

### Division of Academic Affairs

Division of Academic Affairs	Position
Kevin E. Ball, PhD	Associate Provost, Academic Programs and Planning
Jennifer Pintar, PhD	Associate Provost, Academic Administration
Nathan P. Myers, PhD	Associate Provost, International Programs
Kristine L. Blair, PhD	Dean, CLASS, College of Liberal Arts and Sciences
Charles L. Howell, PhD	Dean, BCOE, Beeghly College of Education
Betty Jo Licata, PhD	Dean, WCBA, Williamson College of Business Administration
Joseph L. Mosca, PhD	Dean, BCHHS, Bitonte College of Health and Human Services
Phyllis M. Paul, PhD	Dean, CA&C, College of Creative Arts and Communication
Sal A. Sanders, PhD	Dean, College of Graduate Studies
Wim F. Steelant, PhD	Dean, STEM, College of Science Technology, Engineering and Mathematics
Amy Cossentino, PhD	Director, Honors College

Michael Hripko, MBA	Associate Vice President for Research
Ana M. Torres, BBA	Interim Director, Maag Library

## Division of Enrollment Planning and Management

Division of Enrollment Planning and Management	Position
Gary D. Swegan, MA	Associate Vice President for Enrollment Planning and Management
Susan E. Davis	Director, Admissions
Elaine Ruse	Director, Financial Aid and Scholarships
Jeanne M. Herman, BSBA	University Registrar
Rick Williams	Coordinator, Office of Veterans Affairs

## Division of Finance and Administration

Division of Finance and Administration	Position
Neal P. McNally, MPA	Vice President for Finance and Business Operations
Katrena S. Davidson, CPA, MBA	Controller
John P. Hyden, BCT	Executive Director, University Facilities
Gloria J. Kobus	Bursar
Marilyn K. Ward	Budget Officer, Academic Affairs
James A. Yukech	Associate Vice President for Technology and Chief Information Officer

## Division of Legal Affairs and Human Resources

Division of Legal Affairs and Human Resources	Position
Holly A. Jacobs, JD	Vice President and General Counsel
Gregory Morgione, JD	Associate General Counsel
Cynthia Kravitz, JD	Associate General Counsel, Equal Opportunity and Policy Compliance
Kevin W. Reynolds	Chief Human Resources Officer
Ronald A. Strollo	Executive Director, Athletics

## Division of Multicultural Affairs

Division of Multicultural Affairs	Position
Sylvia J. Imler, PhD	Associate Vice President for Multicultural Affairs

## Division of Student Experience

Division of Student Experience	Position
Eddie J. Howard Jr., MA	Associate Vice President for Student Experience
Joy L. Polkabra-Byers	Director, Campus Recreation & Andrews Recreation & Wellness Center
Kate Fitzgerald	Director, Housing & Residence Life & Program Coordinator, Title IX
John L. Young	Director, Kilcawley Center
Erin E. Driscoll	Director, Student Activities and Greek Life
William J. Blake	Director, Student Diversity Programs

## Division of Student Success

Division of Student Success	Position
Claire Berardini, PhD	Associate Provost, Student Success
Amy Gordon	Director, Comprehensive Testing Center

Christina Hardy	Director, Career and Academic Planning
Ann Jaronski, PhD	Director, Student Counseling Center
Nicole Kent-Strollo	Director, Student Outreach and Support
Leslie Page	Director, First Year Student Services
Becky L. Varian	Director, Center for Student Progress
William Border	Coordinator, Academic Achievers

## Division of University Relations

Division of University Relations	Position
Shannon Tirone, AB	Associate Vice President for University Relations
Catherine A. Cala	Director, Alumni Engagement
Ronald A. Cole	Director, University Communications
Jacquelyn M. LeViseur	Director, University Events
Ross L. Morrone	Director, University Marketing
Gary A. Sexton, MM	Director, WYSU-FM
Shawn Varso	Chief of Police

# General Information

## Student Support Services

### Marion G. Resch Center for Student Progress

The Center for Student Progress (<http://cms.ysu.edu/administrative-offices/center-student-progress/csp-home>), located in Kilcawley Center, is available to assist students in successfully completing their University experience. The Center is designed to intervene actively in the lives of students to help them achieve academic and social success in college. In an effort to cultivate the skills of new students, expand the skills of developing students, and enhance the skills of exceptional students, the CSP offers several services and programs and can be found on the web.

### Adult Learner Services

The CSP/Adult Learner Services assists adult students in making the transition to and graduating from college. Adult students are defined as those who are 25 years of age or older, or who have been out of school four years or more. The CSP/Adult Learner Services provides academic and personal support both individually and through programming with services such as:

- Academic Coaching
- Starfish Early Alert warning progress reports
- Time management and goal setting for adults

Visit CSP/Adult Learner Services (<http://cms.ysu.edu/administrative-offices/center-student-progress/adult-learner-services>) for more information or call (330) 941-3538.

### Disability Services

CSP/Disability Services provides students, faculty, and staff with assistance and information regarding accommodations for people with disabilities, either permanent or temporary. Compliance with the Rehabilitation Act of 1973 and the Americans with Disabilities Act as amended 2008 involves providing reasonable accommodations to qualified individuals with disabilities. These accommodations are provided in order to ensure equal access to people with disabilities regarding educational opportunities, programs, and activities.

The CSP/Disability Services addresses the needs of students with disabilities. Support for academic success includes:

- Serving as the gateway for accommodations for YSU students with disabilities
- Providing accommodation information
- Collaborating with faculty/staff regarding issues involving students with disabilities
- Arranging for classroom modifications for students with disabilities to allow equal educational access
- Making campus referrals/connections

To inquire about receiving disability services, please contact the office at (330) 941-1372 (voice), (866) 757-1353 (video), or (330) 941-7470 (fax). A confidential appointment will be set up to discuss accommodation needs. The CSP/Disability Services is located at 36 Wood Street.

Visit CSP/Disability Services (<http://cms.yсу.edu/administrative-offices/center-student-progress/disability-services>) for additional information or call (330) 941-1372.

## Academic Coaching Services

The CSP/Academic Coaching Services offers professional academic coaching to assist students on a one-on-one basis with strategies for college success. Coaches provide on-site assistance by teaching students learning and metacognitive strategies that apply to coursework. Academic coaches also make campus referrals and follow-up to ensure students receive all the University support available.

Visit CSP/Academic Coaching Services (<http://cms.yсу.edu/administrative-offices/center-student-progress/academic-coaching-services>) for more information or call (330) 941-3538.

## Multicultural Student Services

The CSP/Multicultural Student Services provides the following services and programs to African American, Hispanic, Asian American, and Native American students:

- Academic support
- Workshops
- Faculty/staff mentoring
- Campus referrals and connections
- Starfish Early Alert warning progress reports
- Co-sponsoring of cultural events
- Advocating for minority students
- Summer Bridge and Bridge and Beyond Learning Community

Visit Multicultural Student Services (<http://cms.yсу.edu/administrative-offices/center-student-progress/multicultural-student-services>) for more information or call (330) 941-3538.

## First-Year Student Services

The CSP/First-Year Student Services helps students become familiar with YSU, build confidence, develop direction, and identify opportunities that assist in achieving personal goals. CSP/First-Year Student Services provides all first-year and transfer students with the opportunity for an orientation program throughout the entire first year of college. Peer Mentors, upper-class students who are specially trained, serve as guides and friends to assist new students with time management, goal setting, navigating on campus, social adjustment, academic development and the mechanics of registration. First-year students receive individualized assistance through the development of a personalized plan to guide them through their first year of college. Services include:

- Peer mentoring
- Starfish Early Alert warning progress reports

- Various social and academic activities
- Connections and information for parents

The CSP/First-Year Student Services also provides a continuous opportunity for parents and family to stay connected with information about YSU and their students' first year through the Penguin Parent E-mail and Penguin Parent (<http://cms.yсу.edu/node/17084>) website.

Visit CSP/First-Year Student Services (<http://cms.yсу.edu/administrative-offices/center-student-progress/first-year-student-services>) for more information or call (330) 941-3538.

## Orientation Services

The CSP/Orientation Services realizes that the first year of college is a time of rapid change and new experiences. The CSP/Orientation Services helps students become familiar with Youngstown State University and gives them an edge in achieving their education and social goals. Services include:

- Building confidence, developing direction and identifying opportunities
- Supporting students in their transition to YSU
- Promoting knowledge of campus activities and services that encourage academic achievement and personal growth
- Interacting with faculty, staff, and student representatives
- Receiving academic advisement, selection, and registration of courses
- Providing official information on students' undergraduate programs, rights and responsibilities
- Parent and family member programming

Visit CSP/Orientation Services (<http://cms.yсу.edu/administrative-offices/center-student-progress/orientation-services>) for an explanation of the services provided or call (330) 941-2103.

## Student Diversity Programs

The Office of Student Diversity Programs serves to enhance our student's collegiate experience by contributing to an environment supportive of diversity and inclusion. As such, Student Diversity Programs supports individuals and student organizations to advance our culture of community. This promotes an environment conducive to cultivating relationships, creating a sense of belonging, encouraging personal growth and responsibility, and developing a strong set of interpersonal and professional skills for all students. Through the programs and services of this office students learn the value of civic engagement, cultural awareness, and gain an appreciation for diverse perspectives.

The Office of Student Diversity Programs is located on the lower level of Kilcawley Center directly off the International Student Lounge. The office hours are 8:00 a.m. - 5:00 p.m., Monday through Friday. Our phone number is (330) 941-3515.

## Student Tutorial Services

The CSP/Student Tutorial Services provides support for academic success by offering:

- Regularly scheduled individual and group tutoring sessions
- Independent study materials
- Computer-assisted instruction
- Review sessions for exams
- Academic support through tutoring in a variety of courses
- E-tutoring for selected courses

Visit CSP/Student Tutorial Services (<http://cms.yсу.edu/administrative-offices/center-student-progress/student-tutorial-services>) for additional information as well as a tutorial schedule or call (330) 941-7253.



## Supplemental Instruction Services

The CSP/Supplemental Instruction Services (SI) offers a series of weekly review sessions for students taking selected courses. Availability of SI is announced in the classroom at the beginning of each semester. SI is provided for all students in these classes who want to improve their understanding of course material and improve their grades. SI attendance is voluntary. For students, it's a chance to get together with classmates to compare notes, discuss important concepts, develop strategies for studying the subject, and take part in practice tests. At each session, the student SI leader, who attends the class and facilitates the session, will guide students through this material. The SI leader has previously taken the class and has received preparation to share information about both course content and learning strategies.

For additional information, see the CSP/Supplemental Instruction (<http://cms.ysu.edu/administrative-offices/center-student-progress/supplemental-instruction-si-services>) website or call (330) 941-7253.

## Career & Academic Advising

Your connection to careers and employment opportunities begins with the Office of Career & Academic Advising. This office provides comprehensive career planning/exploration and job search services to students and alumni in all areas of career decision making and the professional job search.

Within the first year of their course of study, students are encouraged to meet with their Career/Academic Advisor in order to fully utilize and benefit from available career planning services and resources.

Services and resources available to first year students include:

- individual career planning services tailored to the individual to help one choose a career field that matches their interests
- comprehensive career resource information center for students to learn about career fields
- job postings from hundreds of local, regional, and national employers

During the junior and senior years of study, students are encouraged to meet with their Career Management Coordinator for professional employment or graduate school preparation.

Services and resources available to all students include:

- resume and interview advice to market individuals for jobs
- workshops and events to connect students with employers
- on-campus programs which brings employers to the YSU campus to interview students for employment after graduation
- annual career fairs

Central to the operation of the Office of Career Services is **PenguinLink** (software by Symplicity), a web-based software system that makes it possible for students and YSU alumni to connect with hiring employers 24-hours-a-day/7-days-a-week. Through **PenguinLink**, students and alumni registered with Career Services can upload their resumes to the database, search job listings and email resumes directly to employers, receive notification of recruiting events and sign up for interviews with employers recruiting on campus. For more information, visit Career Services (<http://cms.ysu.edu/administrative-offices/career-and-academic-advising/career-and-academic-advising>). (<http://cms.ysu.edu/administrative-offices/career-and-academic-advising/career-and-academic-advising>)

## Counseling Services

The YSU Student Counseling Services provides high quality, short term, confidential mental health counseling, consultation, outreach (educational training), and referral services to our currently enrolled students. Common issues that we address include anxiety, depression, stress, relationship concerns, and difficulty managing multiple roles and the impacts of these on being a successful college student. Juggling life's responsibilities is

a challenge that causes many individuals to feel anxious, confused, or overwhelmed at times. We are here to help. The Student Counseling Services Center is located in 3009 Jones Hall. Our office hours are Monday - Friday, 8 am - 5 pm. Our phone number is (330) 941-3737 and/or visit our website Office of Career and Counseling Service (<http://cms.ysu.edu/administrative-offices/counseling-services/counseling-services>).

## Office of Veterans Affairs

Located in the brand new Veterans Resource Center at 633 Wick Avenue, the Office of Veterans Affairs (OVA) serves as a central location to discuss issues, questions, or concerns current and prospective military and veteran students may have regarding their enrollment. The university recognizes the sacrifice of military service and waives the undergraduate application and new student orientation fees for all veterans and currently serving military members. To have the application fee waived, the applicant must provide a DD Form 214 or other verification of honorable service in the armed forces of the United States.

After their initial registration, all military and veteran students are then qualified for the following veteran benefits at YSU:

- Priority registration
- Enrollment into select "Veterans Friendly" GER courses
- Voluntary membership into the "Armed Forces Student Association" (YSU's Student Veteran Organization)
- GI Bill Certification
- Advocacy and counseling services
- Access to the OVA E-Newsletter
- Special recognition at graduation

The OVA also works with the Office of Veterans Affairs Advisory Council, an independent body that guides and supports the university's efforts to serve those who have or are serving in the armed forces. The Council is a representative body drawn from faculty, students, staff, the community and the YSU Board of Trustees.

The Veterans Resource Center (VRC) on campus at 633 Wick Avenue is a 6,000 square foot, fully handicap-accessible facility that is the first of its kind at any university in Ohio. The VRC features lounge space, a computer lab, meeting rooms, a community/class room, kitchenette, ample office space for outside veteran-related organizations and much more. The VRC is open to all student veterans, currently serving military members and military dependents that are using veteran's education benefits.

Students and all interested parties can contact the OVA by visiting our OVA (<http://cms.ysu.edu/administrative-offices/veterans-affairs/office-veteran-affairs>) website, emailing us at [veterans@ysu.edu](mailto:veterans@ysu.edu), or calling the office at (330) 941-2503. Individual person-to-person meetings are available and encouraged.

## Kilcawley Center

Since its opening in April 1974, Kilcawley Center has served as the heart of campus. This not only refers to its central location on campus, but to the many services, conveniences, programs, and amenities it provides to the University community. The Center's casual atmosphere, comfortable lounges, and attractive dining areas focus on making free-time activity an integral part of a YSU education. Through cultural, social, and recreational programming, Kilcawley Center provides for rich and diverse experiences for YSU students. Visit Kilcawley Center (<http://www.kc.ysu.edu>) for details on Kilcawley's services, hours of operation, staff directory, the daily calendar of events, and student job postings.

Kilcawley Center's study lounges are renowned for their comfortable overstuffed chairs and couches that are perfect for studying, relaxing, or napping. The lounges and restaurant dining areas in Kilcawley Center provide high-speed wireless Internet access. The Center offers convenient banking at ATM machines, copy services at ComDoc, as well as offices for Student

Government, the *Jambar* student newspaper, Rookery Radio, and Student Diversity Programs. Kilcawley Center houses 16 seminar rooms, two computer-training classrooms, and a large multi-purpose room. On a daily basis, these rooms host luncheons, workshops, seminars, lectures, organization meetings, and programs.

Graphic Services, located on the lower level of the Center, designs flyers, banners, posters, brochures, and graphics for student organizations and student projects.

Kilcawley Center offers diverse choices in dining. Located on the lower level of Kilcawley are:

- YSU Wendy's with all your favorites
- Jamba Juice (smoothies, juices, and steel cut oatmeal)
- KC Food Court - which includes Denny's The End (bold breakfasts, grilled burgers, hot sandwiches, and fresh salads)
- Chop'd & Wrap'd (made-to-order salads and wraps)
- 2.Mato (classic Italian favorites including specialty pizzas)
- HUB's Dunkin' Donuts
- Mondo Subs (made to order gourmet subs, wraps, and flatbread sandwiches)

Located on the upper level is Kilcawley Center's popular Chick-fil-A Restaurant offering delicious chicken that is 100% breast meat, no fillers or additives, and is hand-breaded in our kitchens. Visit Dine On Campus (<http://www.dineoncampus.com/ysu>) for meal plans, catering, campus places to eat, and today's menus including sustainability and nutritional information.

The Kilcawley Candy Counter is a popular place for quick snacks and beverages, along with U.S. postage stamps and single-dose healthcare items. A campus tradition for 40 years, students visit the Kilcawley Candy Counter to choose delicious chocolates and candy favorites from the large window display of classic glass candy jars. The Candy Counter is easily found in the main arcade hallway of the Center.

**Campus Meal Plans** are available for purchase and are offered with a variety of dining options. A YSU meal plan brochure is available at Meal Plans (<http://cms.ysu.edu/administrative-offices/housing-and-residence-life/meal-plan-information>). For answers to frequently asked meal plan questions or to purchase a meal plan, visit the YSU Chartwells webpage at Dine On Campus (<http://www.dineoncampus.com/ysu>).

Adding **Pete's Points** to your YSU ID card will allow you to debit your purchase at ANY Kilcawley dining location including the Kilcawley Candy Counter. Pete's Points are also accepted at many nearby locations both on and off campus and are listed at Times2Dine (<https://cms.ysu.edu/administrative-offices/kilcawley-center/times2dine>). Stop in the Kilcawley Center Staff Office for more information.

Chartwells provides a full catering menu for small group functions to large dinner buffets. Once you have secured a room reservation in Kilcawley Center, or a site location on or off campus, Chartwells catering director will help you coordinate every detail to ensure your event is a success—whether you are planning a quick box lunch or an elaborate buffet. Contact the Chartwell Catering Department at (330) 941-1979 or visit Dine On Campus (<http://www.dineoncampus.com/ysu>) or visit their office located on the lower level of Kilcawley Center across from Graphic Services.

The Office for Student Experience is located on the upper level of the Kilcawley Center. This suite of offices includes the Kilcawley Center Staff Office, the Associate VP for Student Experience Office, and the Office of Student Conduct. The upper level of the Center also includes the Bookstore; along with and the offices of Student Government, Student Activities, and the Office of Career and Academic Advising. The Andrews Student Recreation and Wellness Center can also be accessed from the upper level of Kilcawley Center.

The YSU Info & PC Lab, where students can find popular software programs on the PCs and access to the Internet. A small fee is charged for printouts.

The YSU Info & PC Lab serves as the information center and lost & found for the University, registers students for campus locker rentals, provides estimates for Kilcawley Resume and Typing Service, and offers for purchase 24-hour campus wireless access (ATT) cards. A fax service is also available and includes international faxing. YSU Info is located on the upper level of the Center near the main lobby.

Kilcawley Center's lower level west wing, located under the Bookstore, houses the Center for Student Progress. The east wing of Kilcawley Center is Kilcawley House, where the Office of Housing and Residence Life and Mercy Health Student Health Clinic are located on the first floor.

## Ombudsperson

Youngstown State University's ombudsperson provides students with an experienced staff member who can answer questions, help mediate disputes, solve problems, explain policies, and recommend changes in University policies and procedures that may be outdated or ineffective. Available during regular office hours in the Office of Upward Bound in Jones Hall, the ombudsperson serves as an advocate, a confidant, a mediator, a helper, and a listener. Visit Student Ombuds Services (<http://cms.ysu.edu/administrative-offices/student-ombuds-services/student-ombuds-services>) for more details.

## Mercy Health Student Health Center

The Mercy Health Student Health Center is located on the first floor of Kilcawley House, which is adjacent to Kilcawley Center. The entrance to the Center is located off University Plaza.

The Center provides health care to all currently enrolled YSU students – both resident and commuter students. Licensed physicians staff the Health Center twelve (12) hours per week during the semester. Appointments are required. Students must call (330) 941-3489 to schedule an appointment. During break weeks and summer term, the Center may have limited hours. Please call the Center for availability.

Health care is available for illness, injury, first aid, and routine health checks. Health screening tests, physical exams for sports and academic programs, gynecological exams, as well as consultations and referrals, are provided. Flu and other immunizations are also given; however, there are charges for these injections.

Office visits are free. Students do not need to have health insurance to use the Center's services. Blood tests, x-rays, lab tests, etc., ordered by a physician are done off campus at the student's choice of provider and at the student's expense.

Student records are kept strictly confidential. Information cannot be released to anyone without the written consent of the student. Certain public health diseases, however, must be reported to the Department of Health as required by law.

For more information, visit Student Health Clinic (<https://cms.ysu.edu/administrative-offices/student-health/student-health>).

## Day Care

Students who have younger children may wish to place them in on-campus childcare centers.

Wee Care Day Care and Learning Centre is the official provider of childcare services to Youngstown State University students, faculty, staff, and alumni. It has a professionally trained staff that takes care of children ages six weeks to 10 years. The Centre is located in Fedor Hall and is open from 5 a.m. to 11:30 p.m. The phone number is (330) 941-2936.

Wee Care is equipped with 24-hour-a-day video monitoring and a very strict sign-in and sign-out policy. Besides the convenience of its location and the quality of its program, students especially like the flexible scheduling options.

Students may also be eligible for child care through the Mahoning County Educational Service Center, which has day care facilities throughout Mahoning County, including one on the YSU campus. Please call (330) 965-7828 for more information.

Partial reimbursement is also available to University students for licensed off-campus day care facilities. Contact the Office of Financial Aid and Scholarships at (330) 941-3501 for more information.

For more information, visit Wee Care Day Care (<http://www.weecareohio.com/partners.html>).

## University Housing Housing & Residence Life

YSU owns and operates five housing facilities for students:

- **Kilcawley House**, located on University Plaza
- **Lyden House** and **Cafaro House**, located on Madison Avenue
- **Wick House** and **Weller House**, located on Wick Avenue

On-campus options for students range from traditional residence hall facilities to apartment-style housing.

On-campus living provides students many advantages and opportunities. University housing facilities are structured environments. Each is a small community, and as such, has procedures and regulations addressing such things as noise, safety, guests and security. University residence halls have full-time professional and part-time student staff that oversee the operation of the halls and assist students with the challenges of daily college life. Each facility has state-of-the-art building security systems. On-campus living is a good place to get to know many students in a short period of time. Sharing bathrooms, lounge space, and corridors with a group means you can't help but make friends quickly. Being on campus also means that classes, the library, the student center, and the wellness center are never very far away.

For more information, see the Housing and Residence Life (<http://housing.ysu.edu>) website.

### Kilcawley House

Kilcawley House was constructed in 1965 and has undergone a complete renovation. This seven-story building can accommodate 224 students. Kilcawley residents live in double-occupancy rooms, complete with loft-style furniture, wall-to-wall carpeting, cable TV, Internet access, and plenty of flexible space. Rooms feature separate room-controlled heating and air conditioning. Lounges and study areas are available on each floor. A computer lab with Internet access is located in the basement. The basement also contains a TV lounge, a game room equipped with ping-pong and pool tables, a kitchen with vending machines, a 24-hour study area, and two music practice rooms. Its residents have the advantage of being located in the heart of the YSU campus and can use all of Kilcawley Center's facilities including a computer center, and copying service without going outdoors.

### Lyden House

When Lyden House opened, a new era began for on-campus housing at Youngstown State. The impressive five-story structure reflects a traditional collegiate gothic style with clean, contemporary lines. Lyden House, located just north of campus along Madison Avenue, houses 300 students. A typical student room is approximately 12' x 17' and houses two students. In addition to a bunk bed, which can be stacked, lofted, or separated, each student has a desk and chair, a dresser, a shelving unit and an armoire wardrobe unit. The furniture is uniquely designed to interchange to suit the individual student's tastes in personal decor.

Rooms also feature separate room-controlled heating and air conditioning units, cable TV, vertical window blinds, overhead lighting and tiled floors. Each

room has high-speed Internet access. All rooms in Lyden are designed to be handicapped accessible.

Each wing of this beautifully designed residence hall includes convenient shower and restrooms, quiet study rooms, and comfortable conversation lounges. Students have full access to a kitchenette/vending area, fitness room, computer lab with Internet access and laundry facilities in the lower level of Lyden. A convenient parking area is also available adjacent to Lyden House.

### Cafaro House

Cafaro House is coed, housing 274 students. The facility, which opened fall 1995, houses participants in the University Scholars Program, BSMD program, and Honors College.

Enclosed suites rather than traditional rooms accommodate 4-18 residents, with individual rooms branching off each suite area to house two residents. One traditional hallway is located on the first floor. Each room has cable TV, and high-speed Internet access.

In addition to providing a variety of lounge and recreational spaces similar to Kilcawley and Lyden, this facility also has academic spaces such as a seminar room, computer lab, and music practice rooms.

### Wick House

Located on Wick Avenue next to the Arms Family Museum of Local History and near the Butler Institute of American Art. Wick House is a restored mansion that was at one time the home of the Wick family. This residence hall offers unique living spaces for 33 upperclass residents. Rooms vary in size and design, accommodating one to three residents, and several rooms offer private bathrooms. Rooms are furnished with beds, desks, and wardrobes similar to those found in Lyden House.

Wick House provides a kitchenette and large lounge on the first floor and laundry facilities in the basement. Ample parking is available adjacent to the building.

### Weller House

Weller House is located along Wick Avenue next to Wick House. Weller House has also recently undergone a complete renovation and accommodates 17 graduate resident apartments.

Having opened in fall 1991, this facility offers apartment-style on-campus living, each unit having a full bathroom with tub and/or shower, a kitchen, high-speed internet access, cable TV, an electric range, refrigerator/freezer, garbage disposal, full size bed and dresser, and a dining table. Apartments vary in size and are designed to accommodate a single student as well as a couple with children.

Weller also offers students a community room and convenient laundry facilities on the lower level.

## University Courtyard Apartments

Established in 2003, University Courtyard Apartments is an added addition to the student housing community, of which the apartments are an ideal option for YSU students wishing to live on campus and still have all the comforts of home.

In 2010, Youngstown State University, obtained ownership of University Courtyard Apartments. The community is located in the Wick Oval area, just minutes away from the center of campus and adjacent to Bliss Hall, home of the College of Creative Arts and Communication. The community is comprised of one, two, and four bedroom apartments and each apartment comes equipped with an appliance package that includes a full size refrigerator, stove, microwave and dishwasher. In addition, the units are fully furnished and equipped with ceiling fans and mini-blinds. Residents can take advantage

of the planned activities, computer labs, study lounge, fitness center and recreation area in the courtyard that includes a basketball and volleyball court and grills. The rent is all-inclusive, which means the residents pay one amount for everything including all utilities, Wi-Fi, high-speed internet access and basic cable TV, and charges are assessed through the students portal account. University Courtyard Apartments provide an ideal way to "study hard and to live easy."

## Christman Dining Commons

The Christman Dining Commons serves students with an on-campus resident meal plan or on a per-meal cash basis. The Commons is located adjacent to both Lyden House and Cafaro House and is easily accessible from Elm Street, Madison Avenue, and Custer Street.

This gracious single-floor dining facility architecturally complements Lyden and Cafaro Houses, seats 300 and will serve over 600 per meal.

The Commons offers a wide variety of menu options to campus residents, from self-serve cold foods, beverages, and snack selections to staff-served grille specialties and hot entrees.

Various meal plans are also available to those current students not living in University-owned facilities.

## Application for Housing

Applications are available online at the Housing and Residence Life (<http://housing.yosu.edu>) website.

In order to be accepted for University Housing, a student must first be admitted to the University. Space is allocated on a first-come first-served basis. If you have not yet applied to the University, contact the Office of Admissions at (330) 941-2000.

## University Housing Partners

### Buechner Hall

Buechner Hall, a privately owned and operated women's residence hall, is located near the center of campus. Although this facility is not operated by University Housing, cooperation and regular communication ensure that the women residents are integrated into campus life.

Designed and built expressly for women, Buechner Hall is operated by the Buechner Foundation, a private, not-for-profit corporation, and is maintained by funds from the original bequest. The Foundation partially underwrites every resident's cost. Located on the YSU campus, Buechner Hall houses 72 women in single and double rooms. The air-conditioned rooms are completely furnished and are cleaned weekly by the housekeeping staff. The dining room provides 15 home-cooked meals a week and weekend cooking facilities are also available. The building has an elevator and sprinkler system, and laundry facilities on each floor. Staff and security guards provide maximum 24-hour security service. A beautiful and immaculately maintained building, Buechner Hall is conducive to a quiet study environment. It is located at 620 Bryson Street, Youngstown, OH 44502. Telephone: (330) 744-5361.

### Independent Living

Off-campus housing is an attractive option for many students. In the greater Youngstown area, there is a wide variety of apartments, houses, and rooms for rent at surprisingly reasonable rates. Much of this housing is within walking distance to campus so students without their own automobile are able to take advantage of it. Many students with transportation opt to live further from campus.

Whatever kind of housing you are interested in, please see options on our website at Housing and Residence Life (<http://housing.yosu.edu>).

## Lockers

Campus lockers are available in Bliss Hall, Moser Hall, and Cushwa Hall at a cost of \$25. A lock is provided by the university and is mandatory for the duration of use. The university assumes no responsibility for property stored in the locker, and all items must be removed at the end of each academic year. Details and rentals are available at the YSU Info & PC Lab located on upper level of Kilcawley Center or at (330) 941-3516.

content to come

## Student Activities

Youngstown State University offers a broad range of campus activities geared toward enriching and expanding the student experience beyond the classroom. Participating in student government, intramurals, student publications, art and music groups, and student organizations gives students opportunities to make new friends; meet people from backgrounds, cultures, and perspectives different from their own; develop leadership skills; and balance the demands of university life with the need for relaxation and recreation.

For more information visit the Student Activities (<http://cms.yosu.edu/administrative-offices/student-activities/student-activities>) page.

## Penguin Productions

Penguin Productions is a student group under the Division of Student Experience charged with assessing, initiating, implementing, and evaluating major events for almost 13,000 students on the campus of Youngstown State University.

Penguin Productions conducts campus-wide assessments of students' entertainment interests and identifies possible performers and venues. Performers such as Elton John, Korn, Sugarland, and Danity Kane have come to campus or the downtown Covelli Centre. Penguin Productions plans Fall Fire Fest and Federal Frenzy, two campus traditions.

Working with Penguin Productions carries no academic credit or pay, but participants get a behind-the-scenes look at events planning, concert staging, ticket management, and other concert business, including meeting the performers.

For more information about upcoming events or becoming a Penguin Productions board member, please call (330) 941-3575.

## Student Organizations

There are over 200 student organizations ranging from academic and social awareness to cultural, Greek, and Student Government. Students are invited to take the first step and discover something that engages their interests. Student organization mailboxes are located in the Student Activities Office, Room 2082, Kilcawley Center.

The following is a partial list of the organizations available at YSU. A complete searchable listing of registered student organizations at YSU, is available on the Student Organization Directory (<http://cms.yosu.edu/administrative-offices/student-activities/student-organization-directory>) web page.

- African Student Union
- Alpha Kappa Alpha Sorority
- Alpha Phi Delta Fraternity
- Alpha Omicron Pi Sorority
- Alpha Xi Delta Sorority (AXD)
- American Institute of Chemical Engineers
- American Marketing Association
- American Society of Civil Engineers
- American Society of Mechanical Engineers
- Anthropology Colloquium

- Armed Forces Student Organization
- Black Student Union
- Bowling Club
- Campus Crusade for Christ
- Catholic Student Association
- Chi Alpha
- College Conservatives
- College Democrats
- Dana Flute Society
- Dance Club
- Dance Ensemble
- Delta Sigma Theta Sorority
- Delta Zeta Sorority
- Early Childhood Association (YSU ECA)
- Economics Club
- Enactus
- Environmental and Animal Rights Coalition
- Environmental Studies Society
- Exercise Science Club
- Food and Nutrition Students
- Film Club
- Golden Key National Honor Society
- Greek Campus Life
- Guitar Association
- Hospitality Management Society
- Ice Hockey Club
- Institute of Industrial Engineers
- Interfraternity Council
- Iota Phi Theta Fraternity
- Jazz Society
- Jewish Student Organization
- Lacrosse Club Team (Club Sports)
- NEOMED
- National Pan-Hellenic Council (NPHC)
- Ohio Collegiate Music Educators Association
- Orthodox Christian Fellowship
- Panhellenic Council
- Penguin Trombone Society
- Phi Alpha Theta (National Honor Society)
- Phi Kappa Phi (National Honor Society)
- Phi Sigma Rho Engineering Sorority
- Physical Education Club
- Rock Climbing Club
- Rookery Radio
- Rotaract
- Rugby
- Running Club
- Sigma Alpha Epsilon Fraternity (SAE)
- Sigma Chi Fraternity (SC)
- Sigma Tau Gamma Fraternity (STG)
- Skating Club
- Slavic Student Association
- Society of Human Resource Management
- Society of Women Engineers
- Sociology Club
- Spanish Club (Los Buenos Veciños)
- STEM Leadership Society

- Student American Dental Hygienists Association (SADHA)
- Student Athlete Advisory Committee (SAAC)
- Student Organization for Respiratory Care
- Student Physical Therapy Association
- Student Social Work Association
- Students In Fashion and Interiors
- Tau Kappa Epsilon Fraternity
- Theta Chi Fraternity Colony
- Urban Gaming Club
- Women's Lacrosse Club
- YSUnitysogie Society
- Zeta Tau Alpha Sorority
- Zeta Phi Beta Sorority

## Greek Life

Greek Life at YSU affords students the opportunity to gain leadership experience and develop a positive social outlet. There are 11 Interfraternity, National Pan-Hellenic Council, and Panhellenic groups from which to choose.

For more information visit the Greek Life (<http://cms.ysu.edu/administrative-offices/greek-life/greek-life>) page.

## Department of Campus Recreation - Andrews Student Recreation and Wellness Center

The Department of Campus Recreation is located in the Andrews Student Recreation and Wellness Center. This state-of-the art facility contains more than 140 pieces of strength and conditioning equipment. Located near the free-weight and cardio area is the Center's impressive rock wall, at 53 feet Ohio's tallest. Volleyball, basketball, and other activities are situated within the multi-purpose sports forum, which contains four courts. The spacious aerobic studios are home to many group exercise classes and are adjacent to the 1/8-mile indoor track, both on the top floor of the facility.

The Andrews Center also includes a tranquil meditation studio, full-functioning locker rooms, and the Wellness Resource Center. In addition to the Andrews Student Recreation and Wellness Center, the Department supervises programs in Beeghly Physical Education Center, Stambaugh Stadium, and the outdoor complexes (Farmer's Field and Harrison Field).

Participants must have a valid YSU ID card to use the facilities, equipment, services, and programs offered by the Department of Campus Recreation.

The Department is one of the most popular places on campus to be employed. If you are interested in applying for a position, please register for the Semesterly job fair at the department's or complete the department application, including a completed cover letter and resumé, which can be found online at Campus Recreation (<http://cms.ysu.edu/administrative-offices/campus-recreation-and-wellness/campus-recreation>).

For additional information about the Department of Campus Recreation, please contact (330) 941-3488 or visit the Campus Recreation website. (<http://cms.ysu.edu/administrative-offices/campus-recreation-and-wellness/campus-recreation>)

## Campus Recreation Club Sports

The Club Sports program at Youngstown State University provides opportunities for students who desire a more in-depth sports experience than is provided in the Intramural and/or open recreation program. The focus of the Club Sports program blends the aspects of learning new skills, practicing with club members, and possibly competing with other clubs while continuing with your love of a particular sport way long after high school. It also provides a great opportunity to meet new people and become more involved with campus

life at YSU. Broaden your college experience and create or join a Club Sport today. Don't see the club sport you want? Start your own. Contact Tessa Padilla in regards to starting your own team! Tessa Padilla at 330-941-2239 or by email at [tdpadilla@ysu.edu](mailto:tdpadilla@ysu.edu).

Current club sports include:

- Bass Fishing
- Bowling
- Equestrian
- Fencing
- Hip Hop Dance
- Ice Hockey
- Ice Skating
- Men's Lacrosse
- Men's Volleyball
- Paintball
- Racquetball
- Rock Climbing
- Running Club
- Soccer
- Trap Shooting
- Ultimate Frisbee
- Women's Lacrosse
- Women's Rugby
- Women's Volleyball
- Wrestling

## Student Government Association

The student body of Youngstown State University is represented by Student Government, which operates under constitutional powers granted by the University. The legislative branch of Student Government is composed of representatives from the six undergraduate colleges and the School of Graduate Studies and Research, in proportion to the enrollment of each. All meetings of student government representatives are open to the student body.

Student Government exercises the power to conduct student elections, to recommend students to serve as members of joint faculty-student committees, and to supervise programs financed from its operating budget.

Student Government selects nominees for the two student positions of the University Board of Trustees.

For more information visit the Student Government (<http://sga.ysu.edu>) page.

## The Jambar

The University supports two student publications that provide an avenue for students to express their literary and artistic talents. Policies and procedures concerning student publications are prepared, reviewed, and applied by the Student Publications Committee.

The *Jambar*, a newspaper published once a week, and *The Penguin Review*, a literary annual, are recognized student publications on campus.

## Theater and Dance

All students are encouraged to get involved in University Theater, Dance and Film productions and classes. Opportunities exist for students to perform on stage, work in tech and Design areas as well as participate in student film productions. Auditions, Classes, and productions are regularly scheduled throughout the academic year. Please check out our Facebook page "YSU Department of Theater and Dance" to find out about upcoming ways to get involved!

Membership in the Eta Phi chapter of Alpha Psi Omega, the country's largest and most active honorary dramatics society, is open to YSU students who distinguish themselves in both theater and scholarship. Membership in dance ensemble is done by audition.

Major University Theater productions are presented in Bliss Hall, the performing arts complex which contains Ford Theater, a 400-seat standard proscenium theater, and the Spotlight Theater. Besides accommodating major productions, the Spotlight Theater also serves as a laboratory for student directed plays, various workshop activities and classroom activities.

With an emphasis on "learning by doing," YSU theater and dance students apply classroom theories and techniques in numerous campus productions. An active guest-artist program has also brought them into working contact with noted practitioners from the professional world. Participation in The Kennedy Center American College Theater Festival and The American College Dance Festival offer undergraduate research opportunities to students.

For more information visit the Theater and Dance (<http://www.ysu.edu/academics/college-creative-arts-and-communication/facilities/theater-and-dance>) page.

## Music

Many campus musical ensembles are open to all students of the University. For these, see the Dana School of Music in the College of Creative Arts and Communication section of this *Bulletin*.

For more information visit Dana School of Music (<http://www.ysu.edu/academics/college-creative-arts-and-communication/dana-school-of-music>).

## Art

Student and faculty art exhibitions, including two annual graduating BFA exhibitions, are held in the John J. McDonough Museum of Art on the YSU campus. The McDonough Museum also exhibits work of nationally and internationally known artists. The Butler Institute of American Art (<http://butlerart.com>), a private institution located in the midst of the YSU campus, sponsors two annual competitive exhibitions, the area annual and the national mid-year, to which students are encouraged to submit work. The Judith Rae Solomon Gallery, located on the 2nd floor of the College of Creative Arts and Communication's Bliss Hall, is used throughout the year for various student and faculty exhibitions, in addition to exhibitions of visiting artists. The Student Project Gallery located in the lower addition of Bliss Hall, is a space dedicated to give students opportunities to exhibit their artwork.

The Student Art Association sponsors an annual exhibition of the work of Youngstown State University students. The work is displayed at the McDonough Museum of Art (<http://www.ysu.edu/mcdonough-museum>) during the month of April, with awards given from various donors. Other area venues also exhibit student work, such as The Oakland Center for the Arts, Trumbull Art Gallery, and the Art Outreach Gallery at the Eastwood Mall.

For more information visit the Department of Art (<http://artdept.ysu.edu>).

## Intercollegiate Athletics

Intercollegiate athletics are conducted at Youngstown State University to meet the needs and interests of the entire student body as spectators or participants in healthful amateur sports. Tryouts are open to any student who qualifies under the Youngstown State University, NCAA, and conference eligibility regulations. Men's teams compete in intercollegiate baseball, basketball, cross country, football, golf, tennis and track and field. Women's intercollegiate teams compete in basketball, bowling, cross country, golf, soccer, softball, swimming and diving, tennis, track and field and volleyball.

The University's intercollegiate athletic programs are governed by the National Collegiate Athletic Association (NCAA).

Students are encouraged to participate as athletes, cheerleaders, trainers, managers or scorekeepers in any of the varsity sports. Students who want to try out should contact the head coach of the sport of interest in either Beeghly Center or Stambaugh Stadium.

See the **YSU Athletics** website for more information.

## Honorary Organizations

Honorary organizations related to academic fields and departments recognize outstanding achievement by University students. Many of these organizations are local chapters of national honor societies, which provide national recognition and local scholarships.

For more information on honorary organizations in your area of academic concentration, contact the faculty department chairperson of that area, or the Student Activities Office (<http://cms.ysu.edu/administrative-offices/student-activities/student-activities>), second floor, Kilcawley Center.

- Alpha Epsilon Delta - Honorary Premedical Society
- Alpha Kappa Mu - Historically African-American Honor Society
- Alpha Lambda Delta - Freshman Honor Society
- Alpha Phi Sigma - Criminal Justice Honor Society
- Alpha Psi Omega - Drama Honorary
- Beta Alpha Psi - Accounting and Finance
- Beta Gamma Sigma - Business
- Chi Sigma Iota - Counseling Honorary
- Eta Sigma Gamma - Health Education Honorary
- Golden Key - National Honor Society for achievement in all undergraduate fields of study
- Kappa Delta Pi - Education Honor Society
- Kappa Omicron Nu - Human Ecology
- Lambda Pi Eta - Communications Studies
- National Society of Collegiate Scholars
- Omega Chi Epsilon - Chemical Engineering
- Omicron Delta Kappa - Leadership
- Order of Omega - Greek Letter Honor Society
- Phi Alpha Theta - History Honorary
- Phi Epsilon Kappa - Physical Education
- Phi Kappa Phi - National Honor Society for achievement in all fields
- Pi Mu Epsilon - Mathematics Honorary
- Pi Sigma Alpha - Political Science
- Psi Chi - Honorary Psychology
- Sigma Alpha Lambda - National Leadership and Honors Organization
- Sigma Pi Alpha - Human Resource Management
- Sigma Theta Tau - Nursing
- Society for Collegiate Journalists
- Tau Beta Pi - Engineering Honor Society
- Theta Alpha Kappa - Religious Studies & Theology
- Upsilon Pi Epsilon - Computing & Information Disciplines

## YSU Annual Awards

The University has established a series of awards to recognize excellence and to encourage participation in campus life. The awards are presented annually at the Student Activities Awards Banquet in the spring. Each year students, faculty, and staff are invited to nominate outstanding individuals and organizations for these prestigious awards. Selections will be made by a committee composed of students, faculty, and staff. Details regarding this program and the different awards listed below may be obtained from the Student Activities Office.

### Cardinal Newman Service Award

The Cardinal Newman Award is given to a graduating senior who, through service to the Newman Center, Catholic Student Association, the Youngstown State University as a whole, and to the wider community, has embodied Cardinal Newman's motto, thus allowing their own feats to be spoken to others in service and in recognition of the responsibility we each have to care for our neighbor.

### Constellation Award-Outstanding University-wide Programs

This award recognizes an outstanding University-wide event sponsored by a registered YSU student organization. The program must be distinguished by its inclusion of the University community and the program's contribution to the quality of student life.

### DeCrane-Houser Award

Scholarship for a student who has been active at the Newman Center. It is in honor of Arthur DeCrane, who was the first Catholic campus minister for Youngstown College and also for the late Judge William Houser, who was active in the Newman Center while going to school here. Judge Houser's family donated a large sum of money to make this scholarship available upon his death.

### Emerging Leaders Program

The Emerging Leader Program provides students with an opportunity to develop and refine the knowledge and skills essential to leadership. Students who complete the program receive designation on their official University transcript, cords for their academic regalia, and a YSU Leadership pin.

### Gillespie-Painter Award

To recognize outstanding achievement in support of the Division of Student Affairs at YSU beyond the scope of assigned duties. All members of the Division of Student Affairs are eligible for this award.

### The John J. Gocala Service Award

The John J. Gocala Service Award was established by the Student Government Association during the 2008-09 academic year to recognize the commitment and contributions of John J. Gocala during his tenure as YSU Police Chief.

The intent of the award is to recognize one individual within the university community who has gone above and continues to go above and beyond the call of duty to serve the first-class reputation and traditions of Youngstown State University.

The individual must truly work to preserve the best interests of the YSU campus and community.

### Kocinski Award

The Kocinski Award is given in honor of Marilyn Kocinski, who taught dance at YSU in the Department of Human Performance and Exercise Science from 1960 to 1983.

Her family was responsible for instituting the award in the late 1990s in her memory. The award is presented to a senior student who has played a significant role as a student leader in the YSU Dance Ensemble and who demonstrates academic integrity as well as artistry and creativity in the field of dance.

### Libra Award-Outstanding Advisor

The Libra Award is presented to the outstanding faculty/staff advisor of a registered student organization. The award is designed to recognize the contributions and commitment to furthering student leadership development made by advisors.

## Dr. Martin T. "Marty" Manning Award

The Martin T. "Marty" Manning Award, established during the 2010-2011 academic year by the Student Government Association, is in honor of the late Dr. Martin T. "Marty" Manning. The award is in recognition of the superior student mentoring of Dr. Manning.

The award is given to a full- or part-time student, administrator, faculty or staff member, or alumnus/a who has exemplified the student-mentoring capacity that Dr. Manning so consistently displayed throughout his Youngstown State University career.

## Dr. Charles A. McBriarty Award

This award was established by Student Government during the 1992-93 school year to recognize and remember the commitment and contributions to students and student services by Dr. Charles McBriarty during his tenure as Vice President for Student Affairs. Its intent is to recognize individuals within the university community who have a reputation for being exceptionally student-oriented and who possess the traits, ethics, and friendly style exhibited by Dr. McBriarty.

## Edna K. McDonald Cultural Awareness Award

Award to recognize an outstanding individual who has made a lasting contribution to encourage and increase awareness of cultural diversity at Youngstown State University. All faculty, staff, students, and members of the extended YSU community are eligible for the award.

## Mentor of the Year

This award honors the faculty or staff mentor who has contributed the most during the past year to the development of a YSU student.

## Multicultural Student Services Leadership Award

The Multicultural Student Services Leadership Award recognizes up to two minority students served through the Center for Student Progress who have achieved academic success and demonstrated effective leadership in promoting cultural awareness to the campus and community.

## Nova Award-Outstanding New Student Organization

Recognizes a newly registered student organization exhibiting initiative in organizational development and strong potential to contribute to the quality of life as a recognized student organization at Youngstown State University.

## Orion Award-Outstanding Student Organization

The Orion Award recognizes an exceptional student organization for its outstanding leadership and service to the University community during the current academic year.

## President Cynthia E. Anderson Lifetime Achievement Award

Awarded to a full-time student who has exhibited an extended commitment and dedication to serving the student body through various positions on Student Government.

## Sirius Award-Student Employee of the Year

This award recognizes student employees who have made outstanding contributions to their employers and demonstrated skills and commitment above and beyond expectations.

## Smith-Murphy Award

The award shall be given to one full-time faculty member each year. The recipient shall possess the qualities of Lester Smith and Gratia Murphy and display a genuine concern for the well-being and success of the students he or she teaches.

## Student Government Spirit Award

Given by Student Government to a member of the campus or Youngstown metropolitan community who has displayed enthusiasm for the work of YSU Student Government over the past academic year.

## Student Service Award

To recognize an outstanding individual who has demonstrated exceptional commitment to the students of YSU. All faculty, staff (excluding the Divisions of Enrollment Planning and Management, Student Experience, and Student Success), and members of the University community are eligible for this award.

## Gina Tenney Memorial Scholarship

Gina Tenney was one of YSU's best and most dedicated students. Before her tragic death in 1985, Gina had been actively involved in campus life and had achieved excellent academic standing. She served in Student Government and was a student assistant in the Student Services Office. She was also active in the University Theater Department. In honor of Gina's memory, the Gina Tenney Memorial Scholarship Fund was established in January of 1986 by the YSU Student Government.

## YSU Pin

Begun more than 60 years ago, in 1948, the YSU pin recognizes up to five graduating seniors who have achieved academic success and demonstrated outstanding leadership, motivation, and creativity in University and community activities.

## The Luke N. Zaccaro Award

The Luke Zaccaro Award is given to a YSU student who may be a member of Student Government. The individual should have done something exceptional for the university, Student Government, or fellow students during the course of the current year.

## Other Awards and Prizes

### YSU Leadership Scholarship

The YSU Leadership Scholarship recognizes outstanding students for their contribution to and leadership in campus activities. Each year up to seven students are awarded \$600 for Fall tuition and fees.

### The Greek Campus Life Awards for Scholarship

Given annually to the fraternity and sorority chapter with the highest aggregate point index and to the member of a fraternity with the highest individual point index, based on the academic work of the previous two semesters. The awards are presented during the spring semester at the annual Greek Sing competition.

### Who's Who Among Students in American Universities and Colleges

A list of upper-class students and graduate students achieving outstanding academic and curricular records.

## Student Conduct

### Student Conduct

Students at YSU have an obligation to conduct themselves in a manner that is compatible with the University's purpose as an institution of higher education. The policies and regulations in *The Student Code of Conduct* have been established to ensure a positive educational experience for every student. Each student is expected to be fully acquainted with all published policies, procedures, and regulations of the University and is held responsible for compliance with them. Therefore, all students should take time to familiarize themselves with *The Student Code of Conduct*, residence hall policies, university lease agreements, student organization policies, and other related policies to



ensure they are aware of both the expectations of them and the rights afforded to them as a member of the university community.

Students who are believed to be in violation of *The Student Code of Conduct* or other university policies will be referred to the Office of Student Conduct for a conference and possible hearing. The student conduct process at YSU adheres to procedural due process and is intended to be part of the larger university educational process. Therefore, outcomes of student conduct hearings wherein students are found responsible for violations of *The Student Code of Conduct* may include educational sanctions, fines, status changes, restriction of privileges, and even expulsion from the University.

In the event that a member of the university community needs to report a potential violation of *The Student Code of Conduct*, they can contact a staff member from Housing & Residence Life, University Courtyards, Student Experience, Student Conduct, or Youngstown State University Police Department. Additionally, the YSUPD website has a Confidential Tip Form that can be used to provide anonymity to the reporting person.

More information and the full text of *The Student Code of Conduct* can be found on the Student Conduct website (<http://cms.ysu.edu/administrative-offices/student-conduct/welcome-student-conduct>).

## University Events

The office of University Events creates, coordinates, and/or assists with university events on campus and in the community. University Events fashions and implements a standard "University Look" to carry across all events to uphold the exacting standards of YSU and to ensure all events exhibit the same level of quality that envisions YSU's dedication to tradition and excellence. The mission of the office is to communicate and visualize YSU's message, motivation, and image in the best way possible to internal and external audiences in order to build campus and community spirit and highlight all that the University has to offer.

University Events is charged with coordinating and implementing major university events. Annually, these include commencement, convocations, grad central, the faculty and staff awards banquet, the Canfield Fair, Friend of the University, Youngstown Day, and various lecture series. University Events is also assigned unique one-time events such as political and dignitary visits, presidential installations, partnering community, campus, faculty, and athletic events.

A remaining aspect of University Events is assisting campus colleges, departments, and programs with their events when requested. Under this realm, University Events institutes the University Look and helps with event planning, logistics, and day of support when needed.

## Research at YSU

Youngstown State University is committed to fostering high quality, nationally competitive research to promote faculty and student development in support of the teaching mission of the University. As noted in its mission statement, "The College of Graduate Studies supports the continued development of faculty scholarship and serves as the principal point of coordination for both internally- and externally-funded programs at Youngstown State University." These coordination efforts are directed at obtaining the resources necessary to mount and maintain scholarly and educational programs of excellence and, in some cases, to target specific areas for regional and/or national prominence.

Youngstown State University faculty members are heavily invested in scholarship on an individual basis. Graduate faculty research interests are listed for each degree program in the catalog and also individual faculty members web pages accessible from departments/websites. Excellence in research and scholarship by faculty and students is highlighted in our *New Frontiers* publication.

## Center of Excellence in Materials Science and Engineering

The program, comprised of 22 faculty and staff from six departments in the College of Science, Technology, Engineering and Mathematics, is devoted to the preparation, advancement and development of a variety of materials for basic research, educational experiences and practical applications.

## Advanced Manufacturing Research Center

The center will lead YSU efforts in the development and practice of advanced manufacturing technologies, including additive manufacturing, robotics, reverse engineering, digital metrology and hybrid manufacturing.

## Williamson College of Business Administration Center of Excellence in International Business

The center capitalizes on and integrates the strong and varied WCBA international business activities already in place, including the Williamson Center for International Business and the Ohio Small Business Development Center/Export Assistance Network.

## Center for Sports Medicine and Applied Biomechanics

Biomedical science and technology has grown dramatically over the last two decades and has become a major academic and industry research area. This center, along with a new minor program in Biomechanics and joint master's program in Biomedical Science, will serve to address these growing needs. Faculty in the College of STEM and in the Bitonte College of Health and Human Services have collaborated to build a state-of-the-art laboratory for medical science and biotechnological research.

## Centofanti Center for Health and Welfare for Vulnerable Populations

The center is committed to serving the needs of vulnerable individuals impacted by debilitating illness, poverty, disability and/or discrimination throughout the Youngstown community. The center currently provides health and human service trainings to faculty, staff and community members. It will continue collaboration through the establishment of student-driven programs that improve the health and well-being of patients attending the Midlothian Free Health Clinic.

## Institute For Applied Topology & Topological Structures

The Institute, located within the Department of Mathematics and Statistics, promotes, facilitates, and supports topological research, education, and application at the University, in the State of Ohio, and throughout the world, and helps implement the University's role as an Urban Research University. This mission includes the growing and strengthening the topology group at Youngstown State University and its alliance with other topologists in the United States and abroad, particularly with the topology groups at Slippery Rock University and other universities in the region. Toward that end, the Institute supports any activity that facilitates research and scholarly growth or funding for the topology group and its collaborating organizations.

## Natural Gas & Water Resources Institute

The YSU Natural Gas and Water Resources Institute will provide bachelor's degree level courses in science and engineering that will lead to an academic minor in gas technologies and also will provide research opportunities for industry focusing on analysis of water used in the shale gas extraction process. Because of YSU's location in the Utica shale region of Ohio, this new

Institute will meet the educational and research needs of this new and growing industry.

The Utica shale is a large rock formation thousands of feet below the surface spanning an area from eastern Ohio to Pennsylvania and across the Canadian border. Gas contained in the Utica shale is expected to become a dominant source of natural gas for the United States in this decade. A recent study showed that more than 200,000 jobs, including nearly 9,000 in professional and technical services, will be created or supported by 2015 due to exploration, leasing, drilling and pipeline construction for the Utica shale reserve.

## **Regional Economic Development Initiative (REDI)**

The Regional Economic Development Initiative (REDI), located in the Office of Research at Youngstown State University (YSU), was established in 1967 as the Center for Urban and Regional Studies (CURS) to act as a research and public service arm of YSU.

The mission of CURS has been to integrate professional staff, faculty, students, and other University resources to focus on issues and problems of urban and regional development through an ongoing program of basic and applied research and technical assistance and by providing training for local government, community, and economic development organizations and businesses.

During the fall of 2015, CURS transitioned to REDI and toward the role as "Navigator" in research-based, implementation-focused economic development support services for the Mahoning Valley. REDI's change in focus and mission will reflect organizational focus on a plan-implement structure known as design-build, a model often seen in the architecture and construction industries. This focus will enable REDI to serve as the "Navigator" in economic development implementation and support services throughout the Mahoning Valley. Economic development partners throughout the region have affirmed YSU REDI's "Navigator" role.

REDI coordinates and leads monthly Economic Action Group (EAG) meetings in support of economic development in the city of Youngstown and Mahoning Valley. The EAG convenes and engages representatives from a broad cross-section of industries and organizations throughout the Mahoning Valley. REDI provides leadership on federal, state, and private grant-writing initiatives, and also provides valuable GIS mapping and data services to a number of local and regional government, nonprofit, and social service agencies throughout the Mahoning Valley and beyond.

As a lead member of the National Additive Manufacturing Innovation Institute (NAMI) located at the YBI, Youngstown State University is participating in a national/regional network of industrial companies, government agencies/organizations, and universities and colleges focused on industry/manufacturing support, workforce training, and applications research for additive manufacturing. YSU's main role will be workforce development and applied research as appropriate. The University is also the lead institution and fiscal agent for a recent U.S. Department of Energy Grant establishing the Tech Belt Innovation Center, a business incubator in Warren Ohio, focused on developing clean and advanced energy technologies for commercial application.

## **The College of Graduate Studies**

### **Advance your degree, advance your career.**

YSU's faculty is highly qualified and successful in research, scholarly and creative works. Our up-to-date programs offer the latest developments in research and technology. Most importantly we are an urban research university that highly values teaching. This means that the focus is on you and your professional development. Graduate programs are designed to provide student growth in both theory and practice. Field experiences are available and

encouraged. In addition there are always opportunities for research with the faculty.

Our graduate faculty members are accessible both in and out of the classroom. This provides you with the professional and personal interaction needed to develop your potential in addition to increasing your career mobility. Whether you have a specific career path in mind, or are seeking broader professional growth, you'll find solid educational value at Youngstown State University. We hope you will decide to pursue your graduate education here at YSU. You'll find high quality graduate education at Youngstown State University.

## **Mission Statement**

As a state-assisted metropolitan university, the instructional mission of Youngstown State University is focused on the educational, scholarship, research, and service requirements of residents and students of northeastern Ohio and western Pennsylvania, as well as a broader region, including all of Ohio and its surrounding states. This mission is designed to meet a variety of needs, including those in the industrial, professional, business, educational, social, and cultural areas. In support of this mission, the fundamental responsibility of the College of Graduate Studies is to make quality graduate education available to all qualified persons desiring it. Graduate study at Youngstown State University provides an integrated program of advanced study leading to discipline mastery and an understanding of related subjects. A thorough training in research skills and/or professional applications associated with the base of knowledge for each discipline is implicit in all graduate programs. Because of the very nature of graduate work itself, a more than average investment and initiative in learning, inquiry, research, and scholarship will be required on the part of candidates for an advanced degree. Thus, the College of Graduate Studies seeks to develop and maintain programs of high stature that achieve appropriate professional accreditation and attract quality students to the University.

Graduate programs that yield students who have mastered their discipline require a faculty of teacher-scholars who are active in their respective fields of study, whether they are professionally oriented or involved in more traditional scholarship, research, and creative activities. Individuals who meet these requirements constitute the graduate faculty.

The College of Graduate Studies supports the continued development of faculty scholarship and serves as the principal point of coordination for both internally- and externally-funded programs at Youngstown State University. These coordination efforts are directed at obtaining the resources necessary to mount and maintain scholarly and educational programs of excellence and, in some cases, to target specific areas for regional and/or national prominence.

## **Development and Organization**

On March 28, 1967, the Trustees of The Youngstown University authorized the president and faculty of the University to begin developing graduate programs at the master's degree level, starting in the fall of 1968. In May 1967, the Faculty Senate of The Youngstown University authorized the development of master's degree programs in various academic departments of the University. At its first meeting on August 15, 1967, the Youngstown State University Board of Trustees established the office of the dean of the Graduate School and the general regulations governing the appointment of a graduate faculty. It also identified and authorized the initial graduate degree programs that were to be offered. These programs gained approval from the Ohio Department of Higher Education on December 15, 1967. Preliminary accreditation was given by the Higher Learning Commission of the North Central Association of Colleges and Schools in July 1968; continued accreditation was awarded in 1974, 1978, 1988, 1999, and 2008. The College of Graduate Studies is a member of the Council of Graduate Schools in the United States and the Midwestern Association of Graduate Schools.

The College of Graduate Studies is administered by a dean who serves as a member of the Graduate Council. The elected members of the Graduate Council consist of one representative from each college's Graduate Studies Committee, one at-large member from Education, one graduate student member, and one program director from each college. Standing committees of the Graduate Council are:

- Assistantship Allocation,
- Curriculum,
- Exceptions,
- Policy,
- Graduate Student Recruitment and Retention.

## Graduate Student Representation

Within the first month of the fall semester, the Graduate Studies Committee of each college will ensure that a graduate student and an alternate from that college are elected to represent graduate student interests on the College Graduate Studies Committee. The six graduate student representatives to the six College Graduate Studies Committees also constitute the Graduate Dean's Graduate Student Advisory Council (GSAC).

Those eligible to be members of GSAC are full-time graduate students as defined in the graduate catalog, graduate assistants, or part-time students who have completed 12 or more hours of graduate credit, excluding transfer credit, before the fall semester in which the representatives are chosen.

The GSAC will choose from its own membership

- a graduate student member of Graduate Council; and
- a graduate student member to serve on each of the following graduate committees:
  - Assistantship Allocation,
  - Curriculum,
  - Exceptions,
  - Policy, and
  - Recruitment and Retention.

The GSAC may recommend members to serve on a Grievance Committee.

Graduate students serving on graduate committees shall be voting members of the committees on which they serve. Members of GSAC have the right to participate in graduate faculty meetings without voting. Vacancies in GSAC will be filled by Graduate Council. A vacancy will occur automatically if a student representative resigns his or her position or if he or she is not registered for courses carrying graduate credit. The GSAC may request Council to declare a vacancy if the student is delinquent in his or her duties. If there are no available students from a given college, the Council may fill the vacancy with a student from another college.

## Admission

### Admission Procedure

To apply online for graduate admission, visit our website at [www.yzu.edu/gradcollege](http://www.yzu.edu/gradcollege) (<http://www.yzu.edu/gradcollege>). Students are required to pay the admission fee by credit card or electronic check as part of the process. Applicants must send one transcript from each college or university attended, except YSU, to the College of Graduate Studies. Official transcripts must be sent directly from the institution to the College of Graduate Studies. Personal or unofficial transcripts issued to the student or those delivered or sent by the applicant instead of the institution will not be accepted.

Applications for admission cannot be reviewed until official transcripts of all previous college or university work are received. The applicant must see that

the transcripts reach the College of Graduate Studies at the earliest possible date.

The applicant should provide all the information requested in the first submission of materials. Omission of information on the application form will necessitate requests for additional information and therefore delay processing of the application. International applicants should also see the International Student Admission section for additional requirements. As soon as possible after receipt of all application materials, the student will be notified of the action taken on the application. Registration information will be provided once the student has been admitted to the College of Graduate Studies.

Once accepted for admission to the College of Graduate Studies, an applicant may defer admission one time within one year at no cost. The one year will be from the term and year initially selected. Additional deferral of admission or deferral beyond one year will require the applicant to apply for readmission and pay the current application fee.

### \*NON U.S. TRANSCRIPTS

- Any applicant (including U.S. citizens) who attended a non-U.S. educational institution must provide a sealed certified/attested official transcript to the College of Graduate Studies
- If a study abroad student, who earns 24 hours or less at a non-U.S. institution, provides an official transcript from a regionally accredited U.S. school of record that documents the study abroad courses (including credit hours and grades), no additional transcript is required.

## Test Information

In certain master's programs, test results must be submitted to the College of Graduate Studies as part of the admission procedure. The Graduate Record Examination is available at Sylvan Learning Center locations. The Graduate Management Admission Test is available at Pearson VUE test centers; see GMAT website (<http://www.mba.com/us>) for more information. Arrangements for taking the Miller Analogies Test on campus may be made directly with the Testing Office in 109 Meshel Hall, (330) 941-3175. Test scores are valid for five years. The YSU institutional code is 1975.

## Admission Requirements

Minimum requirements for admission to the College of Graduate Studies are the following:

- A bachelor's degree from a college or university certified by a regional accrediting agency (e.g., North Central Association of Colleges and Schools) approved by the U.S. Department of Education
- A cumulative grade point average in undergraduate work of at least 2.7 (on a 4.0 scale)
- Satisfactory preparation for the graduate program in which the student wishes to enroll as specified by the department of the major
- A test of written/spoken English, which the University reserves the right to request, of any entering graduate student whose primary language is not English. Additional requirements apply for international student admission
- Students having a cumulative undergraduate GPA below 2.7 must present a satisfactory score on the general test of the Graduate Record Exam, the Miller Analogies Test, or graduate-level subject specific exam as specified by the department of the major
- Nine semester hours of graduate work at a 3.0 GPA from a regionally accredited institution may be substituted for the GRE requirement for provisional admission status
- The applicant is reminded to check specific admission requirements of the program in which he or she wishes to enroll to determine if there are any additional requirements

## Types of Admission

### Regular

Regular admission will be granted to students who satisfy the admission requirements for the master's program in which they wish to enroll. Other categories are available as noted.

### Provisional

Upon recommendation of the program director or chair, and the college dean, and subject to the approval of the dean of Graduate Studies, a student may be accepted with provisional admission if his or her undergraduate record shows slight deficiencies compared to the admission requirements of the program to which the student seeks entrance. Students who are admitted with provisional status because of undergraduate course deficiencies will be required to make up the deficiencies by taking the appropriate undergraduate courses. Students admitted in provisional status may have no more than 9 s.h. of undergraduate course deficiencies. Students who are admitted with provisional status because of low test score(s) or low cumulative undergraduate grade point averages will be reviewed by the program director and/or chair when nine semester hours of degree-credit coursework are completed. The program director and/or chair will change the student's status from provisional to regular if the deficiencies have been met and/or the student's record justifies such a change. The advisor will report the change to the dean of Graduate Studies on the Action on Provisional Status form.

### Non-degree

Non-degree status provides an opportunity for individuals who hold a baccalaureate or higher degree to enroll in graduate classes for professional or personal development, personal enrichment, or to explore the possibility of entering a graduate degree program without completion of the regular graduate admission process. Departments may require prior approval for non-degree student registration in departmental courses. Students should contact the department for approval to register before submitting an application.

Non-degree applicants must meet all requirements for admission to the College of Graduate Studies (minimum cumulative GPA of 2.7 at the undergraduate level, baccalaureate degree, and submission of all academic transcripts). Status as a non-degree student is not an admission to a College of Graduate Studies degree or certificate program. Non-degree students, including those seeking a graduate certificate, must complete a non-degree application online. Non-degree students are required to pay the regular application fee. If non-degree students subsequently decide to seek admission to a graduate program, no further application fees will be assessed, but all required credentials must be submitted.

Non-degree students are ineligible for many types of financial aid (including assistantships awarded by the College of Graduate Studies). Non-degree students may seek advisement from the chairperson or program director in the academic area in which they have been permitted to take courses.

Students may only complete nine semester hours as non-degree seeking students. A maximum of nine semester hours taken as a non-degree student may be applied toward a degree program if accepted by the department in which the student wishes to earn a degree and if the department's recommendation is approved by the dean of Graduate Studies. This transfer limit may not be appealed. Any additional coursework beyond nine semester hours in non-degree status will not carry credit toward a graduate degree. However, all graduate courses taken as part of a graduate certificate may be counted toward a degree program, if the student is subsequently accepted into the program and the certificate courses are applicable.

Students enrolled in certificate programs may not deviate from the courses required for the certificate. If they do, the additional courses will not carry credit toward a graduate degree. Non-degree students who are enrolled in or who complete certificate programs and subsequently decide to enroll in a graduate degree program must meet all admission criteria for the program in which admission is sought.

NOTE: Students who need to take more than nine semester hours in non-degree status (for licensure, certification, or to earn a graduate certificate, etc.), may reapply to the College of Graduate Studies for up to an additional nine semester hours in non-degree status.

### Transient

Transient admission may be granted to a degree-seeking student who attends any accredited graduate school and who submits a Graduate Transient Student form, signed by the dean of the student's home graduate school, showing that he or she is a graduate student in good standing. The form to be used in such cases may be downloaded from the YSU College of Graduate Studies website ([http://www.yсу.edu/sites/default/files/RequestforTransient\\_Status\\_1016.pdf](http://www.yсу.edu/sites/default/files/RequestforTransient_Status_1016.pdf)). Under some circumstances, transient admission may be renewed for a second semester, but the graduate deans of both universities must approve the renewal. If a transient student later wishes to become a regular graduate student, he or she must be admitted to a degree program by following the usual admission procedures. An admitted transient student must meet all prerequisite requirements for any course taken at Youngstown State University.

## International Student Admission

International applicants must complete an online application for admission and provide all materials required at least four months prior to the semester they wish to be considered for admission. In addition to the regular admission requirements, the following must also be submitted:

- For F-1 or J-1 Visa certification: evidence of financial support and sponsorship during the period of study at YSU, including documents of verification.
- YSU enrolls students in accordance with the policy of the United States Bureau of Citizenship and Immigration Services.

### Academic Credentials and Test Scores

Please arrange to have all colleges and universities attended send the following academic credentials:

- Official (or certified copies) of transcripts or mark sheets
- An official English translation of the transcript if the transcript is not in English
- Certified copy of your graduation certificate/degree stating the degree earned/proof of degree

Official academic credentials are required for admission to the College of Graduate Studies and should be sent whenever possible. However, for application review purposes, scanned copies of academic credentials from institutions outside of the United States will be accepted. Please scan and save all academic credentials as PDFs into one document for each institution attended. **Upload each document to the Unofficial Transcript items within the Supplemental Items listing on your application account page.** International applicants can be conditionally admitted to the College of Graduate Studies, based on scanned documents. Sealed originals will be required for regular admission. ***Upon acceptance, the official documents must be sent to the College of Graduate Studies as soon as possible to avoid delay in your course registration.***

***International students who have attended a U.S. college or university must submit official documents for admission purposes. Copies will not be accepted.***

All test scores (GRE, GMAT, MAT, TOEFL, IELTS, etc.) required for admission to YSU and the program of interest must be sent directly to YSU from the testing agency. The YSU institution code is 1975. ***Official test scores are required for admission.***

Official academic credentials and test scores should be sent to:

Youngstown State University

College of Graduate Studies

1 University Plaza

Youngstown, OH 44555

- Provisional Certificates will be accepted **in lieu of Final Certificates** for international applicants in South Asian, and African markets

## English Language Proficiency

- **TOEFL score**—A minimum score of 550 on the paper-based test, 213 on the computer-based test, or 79-80 on the Internet-based (IBT) Test of English as a Foreign Language by graduates of foreign universities who are nonnative English speakers. (Scores over two years old by the beginning of the term applicants wish to enter are not acceptable.) Arrange with the Educational Testing Service to have your official TOEFL score sent to our office.
- The College of Graduate Studies will accept the academic version of the **IELTS (International English Language Testing System)** as an alternative to the TOEFL exam for international students (A score of 6.5 on the IELTS test equates to a 550 on the paper-based TOEFL).
- Proficiency may also be demonstrated by a letter of **certification from the Youngstown State University English Language Institute (ELI)** stating that the applicant has completed the program of study and is proficient in English at a level appropriate to pursue a graduate degree and present an English language thesis if one is necessary as a degree requirement.
- Prior to full admission to graduate study, students may be tested and placed in special English classes, if necessary, to ensure an adequate level of English proficiency. (Note: Evidence of proficiency is **waived** for applicants educated in **English-speaking countries** as defined in the YSU Undergraduate Catalog or for applicants holding U.S. Legal Permanent Residence for one year or for applicants who have successfully completed 24 semester hours of college-level coursework from an accredited English-medium college in the United States or another country where English is the official language.)
- **ELI Guaranteed Admission**—The application and supporting materials of an applicant whose language score is unknown, or less than that required for admission will be reviewed for admission by the appropriate academic program. Upon recommendation of the program director, academic dean and approval of the graduate dean, an offer of admission to the English Language Institute and admission to a graduate degree program will be made. The offer of conditional admission will be effective for one year. When appropriate, the admission letter will indicate that in addition to being admitted to the ELI program, the applicant will be admitted to the graduate degree program and the College of Graduate Studies upon satisfactory completion of the English Language Institute at Youngstown State University.
- International applicants may be conditionally admitted to the graduate college based on (7) seven semesters of undergraduate study. The conditional admission is contingent on students finishing the degree, and providing a provisional certificate or proof of degree.

## Graduate Programs

The following graduate degree programs are offered by Youngstown State University:

### Doctoral Degree Programs

- Doctor of Education in Educational Leadership
- Doctor of Philosophy in Materials Science and Engineering
- Doctor of Physical Therapy

### Educational Specialist Degree

- Educational Specialist in School Psychology

## Master Degree Programs

- Master of Accountancy
- Master of Arts in American Studies
- Master of Arts in Art Education
- Master of Arts in Economics
- Master of Arts in English
- Master of Arts in Financial Economics
- Master of Arts in Gerontology
- Master of Arts in History
- Master of Arts in Professional Communication
- Master of Athletic Training
- Master of Business Administration
- Master of Computing and Information Systems
- Master of Education in Intervention Services
- Master of Fine Arts in Creative Writing
- Master of Fine Arts in Interdisciplinary Visual Art
- Master of Health and Human Services
- Master of Music in Jazz Studies
- Master of Music in Music Education
- Master of Music in Music History and Literature
- Master of Music in Music Theory and Composition
- Master of Music in Performance
- Master of Public Health
- Master of Respiratory Care
- Master of Science in Biological Sciences
- Master of Science in Chemistry
- Master of Science in Criminal Justice
- Master of Science in Environmental Science
- Master of Science in Mathematics
- Master of Science in Education – Counseling
- Master of Science in Education – Educational Administration
- Master of Science in Education – Special Education
- Master of Science in Education – Teacher Education
- Master of Science in Chemical Engineering
- Master of Science in Civil and Environmental Engineering
- Master of Science in Electrical Engineering
- Master of Science in Industrial and Systems Engineering
- Master of Science in Mechanical Engineering
- Master of Science in Nursing – Adult-Gerontology Acute Care Nurse Practitioner
- Master of Science in Nursing – Family Nurse Practitioner
- Master of Science in Nursing – Nurse Anesthetist
- Master of Science in Nursing – Nurse Education
- Master of Social Work

## Online Graduate Programs

- Master of Respiratory Care
- Master of Arts in Financial Economics
- Master of Business Administration
- Master of Health and Human Services
- Master of Respiratory Care
- Master of Science in Criminal Justice, Criminal Justice Management and Program Planning
- Master of Science in Engineering, Management option

For additional information please: visit the Office of Distance Education website at <http://cms.yzu.edu/administrative-offices/distance-education/>

distance-education, call the office at (330) 941-1516, or send an e-mail to [distanceed@ysu.edu](mailto:distanceed@ysu.edu).

## Certificates

- Certificate in Applied History
- Certificate in Biological Sciences
- Certificate in Instructional Communication
- Certificate in Economics
- Certificate in English
- Certificate in Enterprise Resource Planning
- Certificate in Environmental Studies
- Certificate in Health Care Management
- Certificate in Literature for Children and Young Adults
- Certificate in Mathematics
- Certificate in Nurse Education
- Certificate in Professional and Technical Writing
- Certificate in Teaching English to Speakers of Other Languages (TESOL)
- Certificate in the Teaching of Literature
- Certificate in Teaching of Writing
- Post-masters Family Nurse Practitioner Certificate Program
- Post-masters Adult-Gerontology Acute Care Nurse Practitioner Certificate

## Doctor of Education in Educational Leadership

### Program Coordinator

Dr. Charles Vergon  
4103 Beeghly College of Education  
(330) 941-1574  
[cbvergon@ysu.edu](mailto:cbvergon@ysu.edu)

### Program Description

The Doctor of Education program in educational leadership provides terminal professional preparation for administrators in public and nonpublic schools and health and human service organizations, especially, but not exclusively, those working in the northeastern Ohio and western Pennsylvania areas served by the University. Professionals currently occupying leadership positions in other settings may also be considered for admission when space in the cohort permits. The program is also open to health-professionals for whom no terminal degree is available in their field but who desire a rigorous program of research and leadership studies. The program is designed to build the capacity of individuals to provide effective educational leadership in such organizational settings, with particular attention to enhancing efficiency, equity, and excellence.

The program focuses on the preparation of professionally committed practitioners who reflect the current state of knowledge and best practice in educational leadership. Central to the preparation of such professionals are the refinement and transmission of competencies in the areas of scholarship, instruction, leadership, management, external relations, and personal development. The program is cohort-based and delivered in mixed-mode format with monthly campus meetings and other instruction accomplished through web-based modules.

Admission to the doctoral program is made on a cohort basis. Students are expected to enroll for two doctoral core courses per term for Fall, Spring, and Summer terms. Students who fail to progress with their cohorts will have to await the normal core course rotation to enroll in missed courses. Students who are inactive for more than three terms will have to be readmitted to the program upon the Doctoral Admission Committee's recommendation.

The doctor of education program is administered by the Department of Counseling, School Psychology and Educational Leadership in the Beeghly College of Education.

## Accreditation

The Ed.D. program in educational leadership is nationally recognized by the Educational Leadership Constituent Council. Education programs at Youngstown State University are accredited by the National Council for the Accreditation of Teacher Education.

## Application Procedure

Program information may be obtained from the Department of Counseling, School Psychology and Educational Leadership. Application and financial aid information may be obtained from Graduate Admissions in Coffelt Hall. All application materials must be sent to Graduate Admissions. Please confirm all deadlines with Graduate Admissions. Because application deadlines and the professional mix in cohorts may vary from year to year, those interested in the program are encouraged to contact the department in advance of initiating the application process.

## Residency

Concentrated effort, continuing peer and faculty interaction, and scholarly reflection relatively free from distraction are needed if the student is to develop a considered and mature vision of the profession. Each student is required to meet a minimum residency requirement of enrollment for 18 semester hours during the period of three consecutive semesters, including summer session(s). No Ed.D. student may enroll for more than six semester hours unless his or her advisor approves such enrollment. Dissertation credits may not be used to satisfy the residency requirement.

## Special Notes

Departmental policies and procedures governing the operation of the Ed.D. program are set out in the program *Administrative Handbook* and *Student Handbook*.

All students who successfully complete a doctoral comprehensive examination will be required to enroll in every semester of their candidacy until graduation.

Graduate Studies policies concerning transfer credits, time limits, and other academic matters must be followed. See the General Information of the *Graduate Catalog*, the *College of Graduate Studies Academic Policy Book*, and graduate faculty minutes for current information.

With appropriate selection of concentration courses, this program may provide licensure in either principalship or superintendency or both in Ohio and/or Pennsylvania for educators that satisfy other requirements established by the university and the respective state departments of education.

## Admission Requirements

Acceptance into the Ed.D. program reflects superior qualifications. Admission is by cohort, based upon a competitive evaluation of applications by the doctoral program faculty. Diversity among students in terms of race, gender, disability, geography, and professional discipline is desirable. In addition to the admission requirements of the College of Graduate Studies, applicants will be evaluated holistically for their likely success in the program based on the following weighted criteria:

### Professional Qualifications and Experience

- Possession or qualification for licensure, if it exists for their profession, in the state in which they wish to practice
- Completion of three or more years of professional experience in their field
- Completion of two or more years of administrative experience or demonstration of exceptional leadership skills

- Submission of a detailed resume

## High Academic Achievement

- Completion of an accredited master's degree program in educational administration or in health and human services with a minimum grade point average in graduate study of 3.5 or master's degree in another field with extensive experience in a senior leadership capacity in such an organization.
- Combined score of 900 or more (or 290 or more on revised scale) on the general tests of the Graduate Record Examination. This test must have been completed within the past five years. Applicants must plan to register for this examination in advance. Provisional admission may be granted to otherwise outstanding applicants who fail to achieve the cutoff score.

## Professional References

Presentation of three letters of reference attesting to the applicant's good moral character, leadership and management potential, professional plans, success in teaching, professional commitment, interpersonal skills, and special professional capabilities.

## Personal Goals and Leadership Vision

- Submission of a statement of interest
- Submission of two 500- to 750-word essays: one personal essay and one essay on their leadership vision

## Faculty Interview

- At the request of the doctoral faculty, a personal interview may be required when the initial screening based upon the standards previously listed warrants further assessment of the applicant's likely success in the program.
- Approval of the applicant by the doctoral faculty

## Graduate Faculty

**Jane Beese, Ed.D., Associate Professor**  
Organizational leadership; economics of education; program evaluation

**Karen H. Larwin, Ph.D., Associate Professor**  
Assessment; research design and methodology; statistics

**Patrick T. Spearman, Ph.D., Associate Professor**  
African American history, studies, education, and educational history; educational sociology; disparate discipline procedures among students in public schools

**Charles B. Vergon, J.D., Professor**  
Education law; policy development; educational change

## Degree Requirements

The credit hours required for the Ed.D. in educational leadership consists of a minimum of 61 semester hours beyond the master's degree. These include:

- 30 semester hours of doctoral core courses,
- 18 hours of electives,
- a 3-hour leadership internship or clinical practice, and
- 10 hours of dissertation studies.

A minimum of 39 semester hours of graduate credit beyond the master's degree, exclusive of dissertation credits, must be earned at YSU. Students can transfer up to 18 semester hours of post-master's work that satisfy program elective requirements into the doctoral program from other institutions. Transfer credits may be accepted upon recommendation of the Ed.D. program and approval of the Graduate College within the policies of the College of Graduate Studies.

See the Courses section of this catalog for required prerequisite study for each course. Certain courses reflect the particular vision of the YSU program and are to be completed at YSU. This information is noted in parentheses.

COURSE	TITLE	S.H.
<b>Educational Leadership Core</b>		
EDAD 8122	Leadership in Education	3
EDAD 8125	Educational Politics and Policymaking in the United States	3
EDAD 8130	Learning Processes and the Instructional Leader	3
EDAD 8140	Seminar in Administrative Theory	3
EDAD 8155	Seminar in Current Educational Issues	3
FOUN 8102	Perspectives on Leadership Among Diverse Populations	3
<b>Educational Research Core</b>		
EDAD 8185	Seminar in Educational Research/Dissertation Proposal	3
FOUN 8104	Research Strategies in Educational Administration	3
FOUN 8111	Advanced Research Design and Statistics	3
FOUN 8112	Qualitative Research for Educators	3
<b>Total Semester Hours</b>		<b>30</b>

Select 18 s.h. minimum from leadership in public and non-public schools or leadership in health and human service organizations and approved by advisor from candidate's primary professional discipline.

## Leadership in Public and Non-Public Schools

COURSE	TITLE	S.H.
Select 12 s.h. of educational leadership electives.		12
Select 6 s.h. of teaching and learning electives		6
<b>Total Semester Hours</b>		<b>18</b>

## Leadership in Health and Human Service Organizations

COURSE	TITLE	S.H.
Select of 18 s.h. of educational leadership and HHS concentration area courses		18
<b>Total Semester Hours</b>		<b>18</b>

## Clinical Practice in Educational Leadership

COURSE	TITLE	S.H.
Select one of the following:		3
EDAD 7022	Field Experience (Elementary 7022E; Middle 7022M; or Secondary 7022S)	
EDAD 7040	Clinical Practice for the Administrative Specialist	
EDAD 7050	Clinical Experience: Superintendency	
<b>Total Semester Hours</b>		<b>3</b>

## Dissertation study

COURSE	TITLE	S.H.
EDAD 8190	Dissertation Study	
<b>Total Semester Hours</b>		<b>10</b>
<b>TOTAL PROGRAM HOURS</b>		<b>61</b>

## Comprehensive Examinations

Comprehensive examinations consist of a written examination covering six competencies and an oral examination assessing the overall suitability of the individual as a leader in schools or school systems. Satisfactory completion of these examinations qualifies the student as a candidate for the Ed.D. degree and signifies readiness to begin the dissertation study.

## Learning Outcomes

In the Doctoral Program, candidate performance is assessed across the following objectives with focus at the district-wide or systems level.

1. Candidates will be able to facilitate the development, articulation, implementation, and stewardship of a school system-wide vision of learning that is supported by the school community.
2. Candidates will be able to promote a positive school System culture, provide an effective instructional program at the district level, apply best practice to student learning, and design comprehensive professional growth plans for school district staff.
3. Candidates will be able to manage school district organization, operations, and resources in a way that promotes a safe, efficient, and effective learning environment.
4. Candidates will be able to collaborate with families and other community members, respond to diverse community interests and needs, and mobilize community resources.
5. Candidates will be able to act with integrity, fairly, and in an ethical manner in carrying out systems level leadership responsibilities.
6. Candidates will be able to influence the larger political, social, economic, legal, and cultural context.
7. Candidates will be able to synthesize and apply the above outcomes through substantial, sustained, standards-based work in real school system level settings in their choice of post-master's licensure programs- Ohio Superintendent Licensure and Pennsylvania Superintendent Letter of Eligibility Certification.

## Graduate Courses

### EDAD 6915 Learning, Teaching, and Instructional Leadership 3 s.h.

Leadership behaviors and expectations intended to build teacher commitment, increase teaching competence, and improve the learning climate of students. The importance of and role that adult development and learning play in teacher leadership regarding curriculum and instruction decisions are stressed.

### EDAD 6931 Leadership in Educational Organizations: Theory to Best Practices 3 s.h.

Significant theories, research, and professional practices in the leadership of schools and school systems. Detailed analysis of primary sources and application of sources to reflection on issues and problems of administrative practice.

### EDAD 6933 Educational Policy, Politics, and Change 3 s.h.

Explores who governs America's schools. Provides an introduction to schools as political systems and the values that shape educational politics and policy making. Examines the role of school leaders as agents of change and alternative change models and strategies.

### EDAD 6947 School Building Leadership: Models and Processes 3 s.h.

Theories of leadership and schooling that provide future principals with guides for action and behavior will be presented. Theories that shape personal decision-making processes that build schools as learning communities will be presented.

### EDAD 6949 Legal and Ethical Issues in Public Administration 3 s.h.

Defines law and professional ethics and discusses the role of each in public decision making. Explores the status and application of the law in various areas of school operations through the reading of cases, statutes, and constitutional provisions.

### EDAD 6952 School Finance, Resource Planning, and Management 3 s.h.

An analysis of school funding on a state and local level. School budgeting, site-based management, and school business practice are major topics. An action research project is part of the course requirement.

### EDAD 6954 Educational Marketing and Community Relationships 3 s.h.

Stresses effective communication that supports the marketing of school purposes and programs. Leadership skills that build community support and recognize the value of message delivery to targeted audiences in the community will be related to the marketing of schools.

### EDAD 6955 Professional Development and Human Resources 3 s.h.

In-depth examination of policies and practices designed to reconcile the interests of schools and the people who make them up. Topics include professional and staff development, equal employment, position description, recruitment, selection, performance appraisal, removal, compensation, and emerging issues.

### EDAD 6975 Introduction to Administration Clinical Experience 3 s.h.

Designed to expand candidate's knowledge of the nature, characteristics and demands associated with school administration and provide opportunity to develop skills and dispositions needed for administrative responsibilities. Includes focused field experiences embedded in various courses throughout the program. Requires candidates to perform a particular administrative function in school and community settings.

**Prereq.:** Completion of five of the following courses EDAD 6915, EDAD 6931, EDAD 6933, EDAD 6947, EDAD 6949, EDAD 6954, and EDAD 6955.

### EDAD 6982 Independent Study/Action Research 1-3 s.h.

Individual investigation of advanced topics under the guidance of selected departmental faculty. May be repeated.

### EDAD 6990 Seminar in Educational Administration 1-3 s.h.

A seminar designed for the development of particular skills and/or perspectives on a topic related to educational administration.

### EDAD 6993 Special Topics in Educational Administration 1-4 s.h.

**Prereq.:** Admission to master's degree program in educational administration.

### EDAD 6995 Workshop in Educational Administration 1-3 s.h.

A workshop designed for the development of particular skills and/or perspectives on a topic related to educational administration.

### EDAD 7014 Systematic Use of Information for Continuous School Improvement 3 s.h.

Information systems concepts: analysis, design, implementation, and evaluation applied to individual, school, and program evaluation and improvement. Experience with information retrieval and synthesis from local and state educational databases. An action research project is a major course requirement.

### EDAD 7018 School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies 3 s.h.

Examines school discipline and youth problems that threaten student health, welfare, and safety and research-proven school programs for addressing such problems. Emphasizes the role of school leaders in developing and implementing comprehensive policies and student support programs.

### EDAD 7022 Field Experience 3 s.h.

Completed in a school covered by teaching certificate or license. Second administrative clinical experience designed to highlight tasks.

### EDAD 7024 Collective Bargaining and Systems Issues in Human Resources Administration 3 s.h.

Human resources issues from the central office perspective. Statutory, regulatory, and political contexts for public sector collective bargaining. Conceptual and experiential treatment of traditional and interest-based bargaining. Approaches to human resources policy development. Grievances and management of written agreements.



**EDAD 7025 Educational Governance: Advanced Law and Policy Seminar 3 s.h.**

Explores emergent legal developments affecting P-12 education systems and the role and limits of the law in promoting educational emergent reform. Reviews social science literature on governance issues and factors that affect the nature, degree, and rate of organizational compliance.

**EDAD 7026 Technology and Facilities for Learning Organizations 3 s.h.**

Due to increasing demands upon the educational facilities by the instructional use of technology and the need to prepare students for the world of work, facility management and integration of technology into the facility are examined.

**EDAD 7035 The Superintendency and Evolving Ways of Looking at Leadership 3 s.h.**

This course examines the role of superintendent in the administration of schools. Students will study leadership in complex social organizations so that they can apply current theory and research to their roles in complex, chaotic, educational environments.

**EDAD 7040 Clinical Practice for the Administrative Specialist 3 s.h.**

Candidates for administrative specialist licenses in areas of curriculum, instruction, and professional development or pupil services administration develop an individualized clinical plan and complete a set of tasks and an integrated project aligned with professional standards under the guidance of an appropriately licensed cooperating administrator.

**Prereq.:** Candidates must have completed all or be currently enrolled in remaining courses that compose the requirement of respective specialist license.

**EDAD 7050 Clinical Experience: Superintendency 3 s.h.**

Candidates for the superintendency license are required to complete four tasks from the master syllabus at the district-wide level, supervised by a school superintendent. Major components are the complete analysis of the financial structure of the candidate's school district and a system-level integrated project.

**Prereq.:** Completion of three of the following four courses: EDAD 7024, EDAD 7025, EDAD 7026, EDAD 7035, and two years experience in a building-level administrative capacity or equivalent.

**EDAD 8111 Advanced Research Design and Statistics 3 s.h.**

An in-depth treatment of the major correlational, experimental, and quasi-experimental research designs and associated statistical analyses, including the design and analysis of surveys and factor analytic techniques. Experience in data analysis using SPSS or other statistical packages. 3 s.h. Cross listed with FOUN 8111.

**Prereq.:** EDAD/FOUN 8104.

**EDAD 8113 Theories of Inquiry 3 s.h.**

Perspectives for critical analysis, investigation of ways of knowing, and an examination of criteria that have been used successfully for negotiating status and justifying claims within contested domains of inquiry. 3 s.h.

**Prereq.:** FOUN 8104 and EDAD 8111/FOUN 8111.

**Cross listed with** FOUN 8113.

**EDAD 8122 Leadership in Education 3 s.h.**

In this course students will critically analyze contemporary ways of thinking about leadership. As students examine their present paradigm of leadership, they will also analyze a reconfiguration of leadership that reflects developments in the new sciences and other fields.

**Prereq.:** Admission to the doctoral program.

**EDAD 8125 Educational Politics and Policymaking in the United States 3 s.h.**

Reviews professional literature on politics and policy making at the local, state, and federal level, including the values, institutional actors, processes, and interest groups that shape educational policy. Explores means of identifying problems, analyzing policy alternatives, and measuring policy outcomes.

**Prereq.:** Admission to the doctoral program.

**EDAD 8130 Learning Processes and the Instructional Leader 3 s.h.**

A study of current theories and research in the areas of cognition and learning, development and motivation that underlay approaches to teaching in any context.

**EDAD 8140 Seminar in Administrative Theory 3 s.h.**

Extension of the administrator's abilities to analyze professional problems, develop leadership strategies, and exercise sound decision making.

Nontraditional (nonfunctionalist) theories are stressed, with emphasis on deconstructing and purposefully framing educational issues. Case studies strengthen the application of the theories.

**Prereq.:** Admission to the doctoral program.

**EDAD 8155 Seminar in Current Educational Issues 3 s.h.**

Informing educational leaders about contextual issues of schools is necessary in order to understand and recognize that school reform, both at the time of its proposal and during the developmental stages of its implementation, is intended to ameliorate educational problems.

**Prereq.:** Admission to the doctoral program.

**EDAD 8180 Special Topics in Educational Leadership 1-3 s.h.**

Selected topics for a focused study on problems, issues, or concerns that relate to educational leadership.

**Prereq.:** Admission to the doctoral program.

**EDAD 8185 Seminar in Educational Research/Dissertation Proposal 3 s.h.**

The purpose of this course is to gain knowledge and skills in developing a research question and an appropriate methodology so that chapters I and II of a doctoral dissertation can be completed.

**Prereq.:** FOUN 8104, FOUN 8112, and FOUN 8111.

**EDAD 8190 Dissertation Study 1-9 s.h.**

Covers the design, proposal, conduct, reporting, and defense of scholarly research that addresses a meaningful topic derived from and contributing significantly to the literature of the field.

**Prereq.:** Completion of doctoral comprehensive examination.

**EDAD 8931 Leadership in Educational Organizations 3 s.h.**

Significant theories, research, and professional practices in the leadership of schools and school systems. Detailed analysis of primary sources and application of sources to reflection on issues and problems of administrative practice.D. program in Educational Leadership. Ed.D. students who have not taken EDAD 6931 are required to complete EDAD 8931 and include a supplemental, substantive course assignment that relates to their intended area of specialization.

**Prereq.:** Admission to the Ed.

**EDAD 8949 Legal and Ethical Issues in Public Administration 3 s.h.**

Defines law and professional ethics and discusses the role of each in public decision making. Explores the status and application of the law in various areas of school operations through the reading of cases, statutes, and constitutional provisions.D. program in Educational Leadership. Ed.D. students who have not taken EDAD 6949 are required to complete EDAD 8949 and include a supplemental, substantive course assignment involving original research using primary source materials in education law and policy.

**Prereq.:** Admission to the Ed.

**FOUN 5875 Seminar in Foundations of Education 1-3 s.h.**

Selected topics for a focused study on problems, issues, or concerns to be addressed by a sociological, historical, philosophical, assessment, or research perspective.

**Prereq.:** Permission of chairperson.

**FOUN 5880 Special Topics in Foundations of Education 1-3 s.h.**

An advanced study of sociological, historical, and/or philosophically based research which provides analysis of a particular educational issue with special emphasis on implications for diverse populations and/or diverse school settings.

**Prereq.:** Permission of chairperson.

**FOUN 6901 Philosophical Analysis of Education 3 s.h.**

A philosophical examination and critical reflection on educational theories, including a familiarization with historical contexts and socio/cultural conditions that fostered and related resistance to these theories.

**FOUN 6902 Sociological Bases of Education 3 s.h.**

Selected sociological concepts and theories will form the basis for a critical analysis of schooling. Special attention will be given to the emergence of schools and to how schools serve diverse populations.

**FOUN 6904 Introduction to Educational Research 3 s.h.**

Basic methodologies and techniques of educational research design and elementary statistical concepts are introduced. This course relies on critical thinking and analytical discourse for the examination and evaluation of research studies.

**FOUN 6905 Educational Challenges in Historical Perspective 3 s.h.**

Critical analysis of first-person and other historical accounts of teachers, students, communities, and school reforms as they inform curricular, professional, and social challenges that face educators in their communities today.

**FOUN 6914 Statistical Methods in Education 3 s.h.**

An introductory course in frequency distributions, measures of central tendency, measures of variability, calculations and meaning of percentiles, normal distribution theory, reliability and validity of measures, and basic statistical analysis.

**Prereq.:** FOUN 6904.

**FOUN 6982 Independent Study/Action Research 1-3 s.h.**

Individual investigation of advanced topics under the guidance of selected department faculty. May be repeated.

**FOUN 6990 Advanced Seminar in Foundations of Education 1-3 s.h.**

Selected topics for an advanced study of a topic to be addressed from a sociological, historical, philosophical, assessment, or research perspective.

**Prereq.:** Completion of a master's degree or advanced licensure.

**FOUN 6995 Workshop in the Foundations of Education 1-3 s.h.**

A workshop designed for the development of particular skills and/or perspectives on a school-related topic.

**FOUN 8102 Perspectives on Leadership Among Diverse Populations 3 s.h.**

An explorative study of constructs and concepts of cultural diversity within groups based on notions of class, race, sex, ethnicity, ableness, and religion/spiritualities. Consideration of expectations and organizational practices as informed by diversity issues.

**Prereq.:** Doctoral admission and one of the following: FOUN 6901, FOUN 6902, or FOUN 6905.

**FOUN 8104 Research Strategies in Educational Administration 3 s.h.**

An examination of major research methodologies and a preview of the different paradigms and assumptions that underlie controlled disciplined inquiries. Techniques associated with particular methodologies in educational administration will be introduced, and their strengths and weaknesses will be analyzed.

**FOUN 8111 Advanced Research Design and Statistics 3 s.h.**

An in-depth treatment of the major correlational, experimental, and quasi-experimental research designs and associated statistical analyses, including the design and analysis of surveys and factor analytic techniques. Experience in data analysis using SPSS or other statistical packages. 3 s.h. Cross listed with EDAD 8111.

**Prereq.:** EDAD/FOUN 8104.

**FOUN 8112 Qualitative Research for Educators 3 s.h.**

Consideration of traditional and evolving qualitative methods and literature that apply to doctoral study of problems in teaching, school leadership, and school change.

**FOUN 8113 Theories of Inquiry 3 s.h.**

Perspectives for critical analysis, investigation of ways of knowing, and an examination of criteria that have been used successfully for negotiating status and justifying claims within contested domains of inquiry. 3 s.h.

**Prereq.:** FOUN 8104 and EDAD 8111/FOUN 8111.

**Cross listed with** EDAD 8113.

**FOUN 8115 Schools Society Ideologies 3 s.h.**

# Doctor of Philosophy in Materials Science and Engineering

## Program Coordinator

Dr. Clovis A. Linkous  
5001 Ward Beecher Science Hall  
(330) 941-1958  
calinkous@ysu.edu

## Program Description

The Doctor of Philosophy (Ph.D.) in Materials Science and Engineering is a cutting-edge program, employing state-of-the-art analytical materials instrumentation not found anywhere else in the area between Cleveland and Pittsburgh. Incorporating the research activities from the YSU Center of Excellence in Materials Science and Engineering (CEMSE) and the Ohio Hub for Innovation and Opportunity in Advanced Materials Commercialization, this program promotes the synergistic interaction of industrially focused research efforts of faculty, students, and commercial research partners leading to economic development of the region. The Ph.D. is specifically targeted at producing graduates who can find employment as industrial research scientists or engineers.

## Application Procedure

Program information may be obtained from the College of Science, Technology, Engineering and Mathematics and from the Ph.D. Program (<http://www.ysu.edu/academics/science-technology-engineering-mathematics/materials-science-and-engineering-phd>) webpage. Application information may be obtained from The Office of Graduate Admissions in Coffelt Hall (<http://www.ysu.edu/gradcollege>) and from Ph.D. Program admission (<http://cms.ysu.edu/college-graduate-studies/domestic-admissions>) webpage. All application materials must be submitted through the online application system (<https://ysu.ellucianrecruiter.com/Admissions/Pages/Welcome.aspx>).

## Application Requirements

Students with a B.S. or M.S. in materials science, materials engineering, or related fields (including chemistry, physics, or mechanical, chemical, electrical or civil engineering) can be admitted through the College of Graduate Studies on a competitive basis up to the capacity of the program.

Requirements for admission to the Ph.D. program include the following:

- B.S. or M.S. degree in materials science, materials engineering, or related fields (including chemistry, physics, or mechanical, chemical, electrical or civil engineering);
- Cumulative undergraduate grade-point average of at least 3.0 on a 4.0 scale, or a graduate GPA of 3.3/4.0;
- GRE scores are required. Scores in the following ranges generally reviewed favorably: Verbal = 500-800, Quantitative = 650-800, and Analytical Writing = 4.0-6.0;
- For students whose native language is not English, a TOEFL score of 550 (or comparable score on a similar test)
- Completed application (see Ph.D. Program webpage (<http://www.ysu.edu/academics/science-technology-engineering-mathematics/materials-science-and-engineering-phd>)).

All applications will be reviewed by an admissions committee consisting of the program director and a group of program faculty of sufficient breadth to interpret the credentials of all members of the applicant pool. **The selection/admission process is competitive; meeting eligibility criteria does not assure admission into the program.** Applications received as complete by February 1st will have full consideration for fall admissions and graduate assistant opportunities.

## Graduate Faculty

**Martin A. Abraham**, Ph.D., Professor  
Green engineering; sustainability

**Snjezana Balaz**, Ph.D., Assistant Professor  
Structure of surfaces of thin films, semiconductors, and nanoclusters

**Brett P. Conner**, Ph.D., Associate Professor  
Materials and process development for additive manufacturing also known as 3D printing; functionally graded materials (FGMs); high-strain rate behavior of AM materials; 3D printing of metal casting tooling; business models for additive manufacturing

**Pedro Cortes**, Ph.D., Associate Professor  
Structure-property relationships of polymers; composites and hybrid materials; smart materials and structures; development of chem-bio sensing platforms based on carbon nanotubes

**Michael J. Crescimanno**, Ph.D., Professor  
Noise spectroscopy in multiphoton quantum optics; optical materials

**Allen D. Hunter**, Ph.D., Professor  
Materials chemistry; crystallography; instrumental Methods; chemistry education

**AKM Anwarul Islam**, Ph.D., Professor, Chair  
Impact of blast on highway bridges; use of CFRP in enhancing structural strength of concrete members; structural health monitoring of bridges using wireless sensor network

**Frank Xiyang Li**, Ph.D., Professor  
Electron spin resonance imaging; EMC, RF, and software engineering; networks; applied magnetic fields

**Clovis Linkous**, Ph.D., Professor  
Ceramic electrolytes, polymer membrane electrolytes, solid state hydrogen storage, photovoltaic materials, photocatalytic decomposition of hydrogen sulfide; algae inhibition

**Sherri R. Lovelace-Cameron**, Ph.D., Professor  
Synthesis and electrochemistry of novel organometallic polymers; synthesis of metal organic frameworks

**Hazel Marie**, Ph.D., Associate Professor, Chair  
FEA/CFD modeling applied to solid-fluid interaction of thin film lubrication sealing; mechanical material modeling of soft biological tissue

**Holly J. Martin**, Ph.D., Assistant Professor  
Corrosion studies; modification of metal surfaces to strongly adhere polymeric coatings for corrosion resistance

**Tom Nelson Oder**, Ph.D., Professor  
Micro/nano fabrication and characterization of electronic and opto-electronic devices of wide band gap semiconductors: SiC, group III-nitrides, ZnO

**Donald Priour**, Ph.D., Assistant Professor  
Theoretical condensed matter physics; particularly related to systems of technological relevance where the flow of charge or fluid is modified or inhibited by disorder in the form of random inhomogeneities, or severed wires or bonds

**Josef B. Simeonsson**, Ph.D., Professor  
Analytical atomic and molecular spectroscopy; trace and ultratrace analysis; laser induced fluorescence spectroscopy; laser ionization spectroscopy; Raman spectroscopy; environmental analysis

**Virgil C. Solomon**, Ph.D., Associate Professor  
Synthesis of shape memory alloys, ceramic-metal composites and nanostructures and their characterization using metallography, thermal

analysis and analytical scanning and transmission electron microscopy techniques.

**Timothy R. Wagner**, Ph.D., Professor, Chair  
Synthesis of inorganic oxide and mixed-anion materials; structure characterizations using single crystal and powder X-ray diffraction; electron microscopy techniques

## Degree Requirements

- 90 Semester Hours of Graduate Study
- Qualifying exam, based on the topics presented in the core curriculum, following the second year of study.
- Recommended internship program, usually through full-time paid employment at a partner company.
- Written research proposal, describing the work to be completed for the dissertation. The proposal will be presented orally and defended in front of the dissertation committee.
- Oral presentation of research accomplishments, approximately mid-way through the dissertation research at Seminar.
- Dissertation defended orally to the dissertation committee, which will also approve the final written document. Completion of the dissertation is the culminating experience of the Ph.D. program.

## Coursework

COURSE	TITLE	S.H.
<b>Materials Science and Engineering Course Core</b>		
MATL 7010	Analytical Methods for Materials Science 1	2
MATL 7020	Analytical Methods for Materials Science 2	2
MATL 8010	Structure of Materials	3
MATL 8020	Mechanical Properties of Materials	3
MATL 8030	Thermodynamics and Phase Behavior	3
MATL 8040	Kinetics, Diffusion, and Rate Processes	3
<b>Materials Science and Engineering Research Core</b>		
MATL 6982	Graduate Research	21
MATL 6990	Seminar in Materials Science and Engineering	3
MATL 8050	Materials Internship <sup>or electives</sup>	6
MATL 8060	Dissertation	32
<b>Electives</b>		
Select 12 s.h. of Electives.		12
<b>Total Semester Hours</b>		<b>90</b>

## Special Notes

College of Graduate Studies policies concerning transfer credits, time limits, and other academic matters must be followed.

## Learning Outcomes

- The student will have developed a fundamental understanding of the structure of matter at the atomic/molecular level, particularly in the solid state, and its influence on the physical and chemical properties of a substance.
- The student will have developed a familiarity with the instrumental tools of materials research, including microscopy, spectroscopy, and mechanical testing.
- The student will have developed the personal organizational and disciplinary skills to grasp a research problem involving a lengthy program of investigation, break it down into a sequence of tasks, and follow them through to a conclusion.

- The student will have developed sufficient writing skills to prepare laboratory reports, research papers, journal articles, and an organized dissertation comprising a hundred pages or more.

## Graduate Courses

### **MATL 6982 Graduate Research 1-6 s.h.**

Individual investigation of advanced topics under the guidance of selected program faculty. May be repeated for a maximum of 30 semester hours. . .

### **MATL 6990 Seminar in Materials Science and Engineering 1 s.h.**

Presentations of ongoing research in materials science and engineering. Includes presentations by guest speakers, faculty and graduate students. May be repeated for a maximum of 3 semester hours.

### **MATL 7010 Analytical Methods for Materials Science 1 2 s.h.**

A laboratory course where the student will receive hands-on training with instruments commonly used in materials research. Techniques covered include optical methods, thermogravimetry, differential scanning calorimetry, X-ray diffraction, X-ray fluorescence, magnetic permeability, Hall effect, and atomic force microscopy. (1 h. lecture / 3 h. lab).

### **MATL 7020 Analytical Methods for Materials Science 2 2 s.h.**

A laboratory course where the student will receive hands-on training with instruments commonly used in materials research. Instruments covered include stress/strain apparatus, scanning electronic microscope, electron microprobe, transmission electron microscope, focused ion beam microscope, X-ray photoelectron spectrometer, Auger spectrometer, impedance analyzer, and potentiostat. (1 h. lecture / 3 h. lab).

### **MATL 8010 Structure of Materials 3 s.h.**

A study of the structure/property relationship of materials at the electronic, atomic, and molecular level. Using quantum chemistry, symmetry, chemical bonding and electrochemistry, this course will introduce the student to the classification and properties of amorphous, crystalline, and semi-crystalline structures including metals, semiconductors, ceramics, polymers, and hybrid materials. The properties to be studied include mechanical, thermal, electrical, and magnetic properties.

### **MATL 8020 Mechanical Properties of Materials 3 s.h.**

This course addresses the mechanical behavior of materials, assuming knowledge of elasticity, plasticity, fracture and creep, and aims to provide a robust analytical treatment of these topics across size scales and material types. The course is split into three sections: (a) Continuum mechanics, (b) Advanced phenomena in mechanics of materials, and (c) Case studies focused on the design and processing of materials.

**Prereq.:** MATL 8010.

### **MATL 8030 Thermodynamics and Phase Behavior 3 s.h.**

Detailed examination of chemical equilibria and chemical changes with an emphasis on the theoretical basis for these phenomena and the properties of phase diagrams. The use of computer models for chemical equilibrium calculations utilizing extensive thermodynamic databases.

### **MATL 8040 Kinetics, Diffusion, and Rate Processes 3 s.h.**

Essential topics covered include diffusion in solids and liquids; complex motion of dislocations and interfaces; complex kinetics of phenomena such as phase transformations and morphological evolution; and the rate at which these and other kinetic phenomena occur.

**Prereq.:** MATL 8030.

### **MATL 8050 Materials Internship 1-6 s.h.**

Supervised experience in approved external industrial, government lab, or other comparable environment, working on advanced problems in materials. For materials science and engineering doctoral students or by permission of program coordinator. May be repeated for a maximum of 6 semester hours.

**Prereq.:** MATL 8020.

### **MATL 8060 Dissertation 1-9 s.h.**

Design, proposal, completion, and reporting of scholarly research deemed acceptable to the program faculty. Culminates in an oral presentation to dissertation committee.

**Prereq.:** completion of qualifying exam and research proposal.

## Doctor of Physical Therapy

### **Department Chair**

Dr. Nancy Landgraff  
B311 Cushwa Hall  
(330) 941-2703  
nlandgraff@ysu.edu

## Welcome

Welcome! Our entry-level Doctor of Physical Therapy (DPT) Program offers academically-talented students an opportunity to join a profession that contributes in countless ways to movement and health.

We are proud of the quality of our faculty and students. We have well-credentialed faculty—many hold doctorates and/or advanced specializations. Many of our courses are team-taught by faculty in a case-based approach that helps students keep clinical practice in mind. Practice labs typically have 2 or 3 full-time faculty supervising and instructing students. Also, students practice hands-on skills with faculty in our Pro Bono Clinic. In addition, the faculty work hard to meet each student's individual needs. Students work well together, learning to make clinical decisions and to be part of an exciting profession.

We are interested in attracting students who are self-motivated learners, willing to be active participants in the teaching-learning process. We also welcome other physical therapists to collaborate with us on clinical research or education. The coming years will be some of our best. Join us!

## Vision

The Physical Therapy Department at Youngstown State University will provide the entry-level doctorate in physical therapy degree (DPT), selected doctoral programs and opportunities for professional development. We will be recognized locally and statewide as a high quality program that prepares students to be autonomous professionals, leaders, good citizens and potential scholars. We will be recognized for excellent academic preparation of students, utilizing an integrated case-based approach to learning, and for outstanding community service and research.

## Program Description

The Doctor of Physical Therapy program is a professional program for the preparation of physical therapists. The program is an entry-level, postbaccalaureate program consistent with the accreditation requirements of the Commission on Accreditation in Physical Therapy Education (CAPTE). Admitted on a competitive basis, students enter the three-year program of professional coursework and clinical education affiliations.

## Admission Requirements

Admission to the Physical Therapy program is competitive. Meeting eligibility standards does not guarantee admission. Admissions are selective. The admission deadline will be posted on the Department of Physical Therapy website (<http://www.ysu.edu/academics/bitonte-college-health-and-human-services/physical-therapy-dpt>).

Students should apply to the physical therapy program if the following eligibility requirements are met:

1. A minimum overall GPA of 3.2 on a 4.0 grading scale.
2. A 3.0 GPA in prerequisite courses. A minimum of 6 courses completed prior to applying. All prerequisite courses must be completed with "C" or better. See the Department of Physical Therapy website (<http://www.ysu.edu/academics/bitonte-college-health-and-human-services/physical-therapy-dpt>) for specific prerequisite requirements.
3. Completion of a bachelor's degree, and all prerequisite courses, prior to starting the program.
4. A recommended GRE score of at least 295 on Part I and 4.0 on Part II.

- Documentation of 40 observation hours (paid or volunteer) under the direct supervision of a physical therapist(s) in a physical therapy setting. Two sites are recommended.
- References: 3 total, a combination of physical therapists and faculty.

In certain circumstances, Youngstown State University students may be provisionally accepted into the D.P.T. program as undergraduates during the summer semester of their senior year. They are not, however, admitted as graduate students until their application for graduate program admission has been accepted and approved and they are admitted to the College of Graduate Studies. Under no circumstances will this admission take place prior to their receipt of the bachelor's degree.

## Accreditation Information

The Doctor of Physical Therapy Program at Youngstown State University is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, Virginia 22314; telephone: 703-706-3245; email: accreditation@apta.org; website: <http://www.capteonline.org>.

Current accreditation was granted in 2014 for 10 years. The next accreditation visit will be in 2024.

National Physical Therapy Examination pass rates for the last 3 years is 100%.

## Graduate Faculty

**James A. Benedict**, PT, Ph.D., Assistant Professor  
Healthcare policy; CVA interventions and outcomes; SCI interventions

**Cara A. Carramusa**, PT, M.S., Instructor  
Geriatrics/older adults; wellness; falls/fall prevention and outcomes; clinical education

**Weiqing Ge**, D.P.T., Ph.D., Associate Professor  
Spinal characteristics; muscle stiffness; responses of paraspinal muscle spindles to forces in animal models

**David William Griswold**, D.P.T., Ph.D., Assistant Professor  
Vestibular rehabilitation; neurophysiological effects of manual therapy

**Nancy Crum Landgraaf**, PT, Ph.D., Professor, Chair  
Stroke; stroke outcomes; process and assessment of professional education

**Kenneth Learman**, PT, Ph.D., Professor  
Physical therapy interventions for the spine

**Cathy Bieber Parrott**, PT, M.S., Assistant Professor  
Orthopedic related disability measurement; program assessment.

**Jane Wetzel**, PT, Ph.D., Associate Professor  
Interventions for persons with cardiopulmonary dysfunction

## Degree Requirements

There are four areas of program requirements that must be satisfactorily completed to be granted the D.P.T. degree:

- professional coursework,
- professional conduct,
- clinical affiliations, and
- critical inquiry project.

Students not making satisfactory progress may be required to repeat that year of the program or be dismissed based on established standards.

There are three levels of coursework in the D.P.T. program.

COURSE	TITLE	S.H.
<b>Level I: Foundation Courses (waivable)</b>		
BIOL 8868	Human Gross Anatomy 1	4
BIOL 8869	Human Gross Anatomy 2	4
PHYT 8800	Pathology	4
<b>Level II: Core Courses</b>		
PHYT 8901	Clinical Decision Making 1	6
PHYT 8902	Functional Anatomy	3
PHYT 8903	Language, Culture, and Health	2
PHYT 8904	Integrated Clinical Education Experience	6
PHYT 8905	Clinical Decision Making 2	6
PHYT 8906	Critical Inquiry 1	3
PHYT 8907	Special Topics: Pediatrics	3
PHYT 8908	Legal and Ethical Issues in Physical Therapy	2
PHYT 8909	Clinical Decision Making 3	6
PHYT 8910	Critical Inquiry 2	2
PHYT 8911	Special Topics: Geriatrics	2
PHYT 8913	Management and Leadership in Physical Therapy	2
PHYT 8914	Clinical Education 2	4
PHYT 8916	Critical Inquiry 3	2
PHYT 8918	Professional Issues	2
PHYT 8919	Clinical Education 3	6
PHYT 8920	Clinical Education 4	12
PHYT 8923	Community Applications	3
PHYT 8924	Histology	1
PHYT 8925	Applied Neuroscience for Physical Therapists	4
PHYT 8926	Imaging and Lifespan Pathology for PT	2
PHYT 8928	Healthcare Delivery	1
PHYT 8929	Clinical Decision Making 3: Advanced Cases	3
PHYT 8930	Clinical Decision Making 4: Advanced Cases	2
PHYT 8932	Pharmacology for PTs	1
PHYT 8933	Clinical Foundation Skills 1	3
PHYT 8934	Clinical Foundation Skills 2	2
PHYT 8944	Clinical Decision Making 4-Part 1	3
PHYT 8945	Clinical Decision Making 4-Part 2	3
PHYT 8938	Special Topics in Physical Therapy (This class, Pro Bono Clinic, is taken 4 times for 1 credit each time.)	4
<b>Level III: Electives</b>		
Students are not required to take electives to be granted the D.P.T. degree.		
PHYT 8921	Independent Study	
PHYT 8922	Research	

**Total Semester Hours**

**113**

## Learning Outcomes

- Students will be able to formulate a differential diagnosis regarding a patient and judge if a patient is appropriate for physical therapy evaluation and treatment.
- Students will be able to effectively manage a client in any of the four physical therapy practice patterns: cardiopulmonary, neuromuscular, musculoskeletal and integumentary.
- Students will be able to provide effective patient and family education regarding the physical therapy intervention and the patient's pathology.
- Students will demonstrate ongoing commitment to professional conduct consistent with the APTA core values.
- Students will effectively relate the scientific evidence to patient cases and physical therapy questions.
- Students will apply knowledge of laws and ethics to patient management.

7. Students will generate valid responses to changes in the Healthcare environment.
8. Students will demonstrate effective verbal and written communication skills.

## Graduate Courses

### **PHYT 8800 Pathology 4 s.h.**

Disease processes and trauma in humans from a structural and functional level; relationship between pathology and clinical signs and symptoms, etiology, differential diagnosis, prognosis, and treatment.

### **PHYT 8901 Clinical Decision Making 1 6 s.h.**

Decision-making process for clinical management of uncomplicated cases in practice patterns. Emphasis on posture and movement assessment, safety, body mechanics, and monitoring physiological status.

**Prereq.:** Admission to DPT program.

### **PHYT 8902 Functional Anatomy 3 s.h.**

Study of kinetics, kinematic variables, and mechanical properties of tissue; motion analysis: posture, gait and functional activities; environmental contexts and constraints, and life span applications.

**Prereq.:** Admission to DPT program.

### **PHYT 8903 Language, Culture, and Health 2 s.h.**

Examination of cultural theory, language, and application to clinical interactions. Cultural assumptions and patterns of health-related activity related to disability, socioeconomic status, age, gender, ethnicity/race, sexual orientation, and religion.

**Prereq.:** Admission to DPT program.

### **PHYT 8904 Integrated Clinical Education Experience 6 s.h.**

Initial clinical experience in examining, evaluating and treating basic patients/clients in four practice settings (acute care, outpatient, geriatric and rehab). Part-time, 12 week experience (3 weeks in each setting) under the supervision of a licensed physical therapist.

**Prereq.:** Admission to DPT program.

### **PHYT 8905 Clinical Decision Making 2 6 s.h.**

Decision making process for clinical management of both routine and less common cases in practice patterns. Emphasis on outcomes research, personnel supervision, individualized and culturally-sensitive intervention, and program design.

**Prereq.:** Admission to DPT program.

### **PHYT 8906 Critical Inquiry 1 3 s.h.**

Develop skills needed to create and answer clinical questions including: use of technology to obtain information: evaluation and application of the information for decision making. Examine the application of current literature to clinical decision making. Emphasis on written research communication methods: scientific writing, documentation and literature reviews. Examine the use of qualitative, quantitative and non-experimental research in health care that are used to inform physical therapy practices. Introduction of group research projects as a means of clinical inquiry.

### **PHYT 8907 Special Topics: Pediatrics 3 s.h.**

Theories of human growth and development and application to typical and atypical motor development and illnesses or injuries of children. Clinical management of cases across the practice patterns with emphasis on family/caregiver participation, team approach, and setting-specific expectations.

**Prereq.:** Admission to DPT program.

### **PHYT 8908 Legal and Ethical Issues in Physical Therapy 2 s.h.**

Foundation knowledge and skills necessary for legal and ethical practice of physical therapy. Emphasis on legal principles and concepts; contract, business, and educational law; ethical theory and ethical decision-making approaches; and professional code of ethics.

**Prereq.:** Admission to the DPT program.

### **PHYT 8909 Clinical Decision Making 3 6 s.h.**

Evaluation of decision-making process for clinical management of complex and complicated cases. Emphasis on reimbursement, professional development, interprofessional activities, and program evaluation.

**Prereq.:** Admission to DPT program.

### **PHYT 8910 Critical Inquiry 2 2 s.h.**

Analysis of literature based on historical and state of the art theories and methods. Evaluate research on selected physical therapy topics. Introduction to research ethics, IRB process and funding. Participation in faculty led, group research projects.

### **PHYT 8911 Special Topics: Geriatrics 2 s.h.**

Theories of life span development and human aging with application to systems development and dysfunction. Emphasis on prevention, well elderly, and illnesses/injuries common to the elderly. Clinical management of cases, considering functional goals; cognition; pharmacology; and reimbursement issues.

**Prereq.:** Admission to DPT program.

### **PHYT 8913 Management and Leadership in Physical Therapy 2 s.h.**

Theories of resource planning, management strategies for utilizing resources (human, information, fiscal, and space/equipment) for health care delivery, and clinical management issues in various physical therapy settings.

**Prereq.:** Admission to DPT program.

### **PHYT 8914 Clinical Education 2 4 s.h.**

Second clinical experience in evaluating and treating a diverse caseload of illness/injury prevention, posture and movement dysfunction, and specialty practice. Includes supervision of support personnel, interprofessional evaluation and treatment, and administrative tasks. Six week full-time experience. Grading is S/U.

**Prereq.:** Admission to the DPT program.

### **PHYT 8916 Critical Inquiry 3 2 s.h.**

Peer review of formally-presented case reports. Each student will then revise the report and design a clinically-related project based on the findings of the case report. The proposed projects will be presented to an interprofessional audience of faculty and area clinicians for assessment and feedback. Emphasis will be given to formal research proposals, clinical applications and resources for project implementation.

### **PHYT 8918 Professional Issues 2 s.h.**

Discussion of professional topics related to entry-level practice, such as leadership, interagency and interprofessional collaboration, future trends and technologies, and opportunities for professional growth.

**Prereq.:** Admission to DPT program.

### **PHYT 8919 Clinical Education 3 6 s.h.**

Continuation of clinical experience in evaluating and treating a diverse caseload illness/injury prevention, posture and movement dysfunction, and specialty practice. Includes supervision of personnel, inter professional practice, administrative tasks, and effective time management. Nine week, full-time experience. Grading is S/U.

**Prereq.:** Admission to DPT.

### **PHYT 8920 Clinical Education 4 12 s.h.**

Final clinical experience in evaluating and treating a diverse caseload of illness/injury prevention, posture and movement dysfunction, and specialty practice. Collaborative client-oriented practice, professional conduct, and professional development. Fifteen weeks of full-time experience. Grading is S/ U. 12 s.h.,.

**Prereq.:** Admission to DPT program.

### **PHYT 8921 Independent Study 1-6 s.h.**

Individual study and projects under faculty supervision. May be repeated for a total of six semester hours.

**Prereq.:** Admission to DPT program, and permission of instructor and department chair.

**PHYT 8922 Research 1-6 s.h.**

Research under the supervision of a graduate faculty member. May be repeated for a total of six semester hours.

**Prereq.:** Admission to DPT program, and permission of instructor and department chair.

**PHYT 8923 Community Applications 3 s.h.**

Community-based project that encompasses the aspects of advocacy, collaboration, social responsibility, consultation and leadership, marketing/PR, and fiscal management.

**Prereq.:** Admission to the DPT Program.

**PHYT 8924 Histology 1 s.h.**

The study of the histological basis of human tissue. Emphasis on the relationship between microscopic structure of tissue types and organ function.

**Prereq.:** Admission to DPT program.

**PHYT 8925 Applied Neuroscience for Physical Therapists 4 s.h.**

Introduction to the anatomy and physiology of the human central and peripheral nervous systems. Interaction and relationships between the various structures are described in order to understand movement, sensation and higher cortical functions. Structure is related to function through clinical case examples with an emphasis on the importance for physical therapy assessment and intervention.

**Prereq.:** Admission to DPT program.

**PHYT 8926 Imaging and Lifespan Pathology for PT 2 s.h.**

Imaging principles, methods and findings to illustrate the relationship to treatment options and plans of care. Case-based examples illustrate the implications for physical therapy practice and referral. Common pathology highly relevant to physical therapy throughout the lifespan are discussed. Introduction to common scenarios for differential diagnosis.

**Prereq.:** Admission to DPT program.

**PHYT 8928 Healthcare Delivery 1 s.h.**

Global study of the delivery of healthcare in a broad-spectrum view. Emphasis is on the societal, economic, legal/ethical and cultural factors that influence healthcare. Multidisciplinary aspects are considered.

**Prereq.:** Admission to DPT program.

**PHYT 8929 Clinical Decision Making 3: Advanced Cases 3 s.h.**

In-depth analysis of patient/client cases which includes pharmacology influences and diversity aspects. Differential diagnosis skills will be further developed in respect to each case. Evidence-based practice will be emphasized.

**Prereq.:** Admission to DPT program.

**PHYT 8930 Clinical Decision Making 4: Advanced Cases 2 s.h.**

In-depth analysis of patient/client cases which includes pharmacology influences and diversity aspects. Differential diagnosis skills will be further developed in respect to each case. Evidence-based practice will be emphasized.

**Prereq.:** Admission to DPT program.

**PHYT 8932 Pharmacology for PTs 1 s.h.**

The study of pharmacologic principles, classifications and common pharmaceutical agents.

**Prereq.:** Admission to DPT program.

**PHYT 8933 Clinical Foundation Skills 1 3 s.h.**

Theories of professionalism in Physical Therapy practice including APTA/OPTA membership and benefits, fiscal responsibility, core values, professionalism, and healthcare compliance will be discussed. Basic patient assessment as it relates to anatomic principles will be taught and practiced and their clinical relevance will be reinforced.

**Prereq.:** Admission to DPT program.

**PHYT 8934 Clinical Foundation Skills 2 2 s.h.**

This course is a continuation of PHYT 8933. Theories of professionalism in Physical Therapy practice including patient and professional advocacy, communication skills, safety, and healthcare compliance will be discussed. Basic patient assessment as it relates to anatomic principles will be taught and practiced and their clinical relevance will be reinforced.

**Prereq.:** Admission to DPT program.

**PHYT 8938 Special Topics in Physical Therapy 1-5 s.h.**

Special interest physical therapy topics selected by the faculty which reflect current trends and issues in physical therapy practice. May be repeated as desired.

**Prereq.:** Admission to the DPT program.

**PHYT 8944 Clinical Decision Making 4-Part 1 3 s.h.**

Topics that integrate practice patterns (musculoskeletal, neuromuscular, cardiopulmonary, and integumentary) such as multiple trauma, burns, amputations, and critical care. Also includes complex cases within routine diagnoses, due to severity, chronicity or comorbidity. Emphasis on outcomes studies.

**Prereq.:** Admission to DPT.

**PHYT 8945 Clinical Decision Making 4-Part 2 3 s.h.**

Topics that integrate practice patterns (musculoskeletal, neuromuscular, cardiopulmonary, and integumentary) such as multiple trauma, burns, amputations, and critical care. Also includes complex cases within routine diagnoses, due to severity, chronicity or comorbidity. Emphasis on outcomes studies.

**Prereq.:** Admission to DPT.

## Educational Specialist in School Psychology

### Introduction

The school psychology program is housed in the Beeghly College of Education. Students who successfully complete 45 credit hours of coursework are awarded the Master of Education (M.Ed.) degree in Intervention Services. An additional 54 credit hours are required for the awarding of the Educational Specialist (Ed.S.) degree in School Psychology. Candidates must also pass the PRAXIS II examination in school psychology for licensure in the State of Ohio and for certification by the National Association of School Psychologists (NASP). (Please note the following are required for admission to the Educational Specialist degree: Successful completion of the YSU M.Ed. In Intervention Services, demonstration of successful skills as evidenced by grades and disposition ratings throughout the program, and a successful Ed.S. admissions interview.)

The program provides a curriculum that is comprehensive, integrated, and sequential. It follows the school psychology standards set forth by the State of Ohio, NASP, and the Council for the Accreditation of Education Preparation (CAEP). Courses reflect current advances in the field of school psychology and education. In addition, the program has a unique emphasis in low incidence disabilities. The program is committed to implementing and integrating the most current technology.

The school psychology program is structured so that course content is accompanied by appropriate field experiences. Practicum experiences are designed to provide students with opportunities to practice skills that are required in professional practice while under direct supervision. Practicum experiences occur in conjunction with specific courses and are individualized in terms of setting and assignment to a field supervisor.

Full-time study in school psychology (M.Ed and Ed.S.) generally constitutes a three-year sequence. To develop the needed specific competencies and to meet the training goals of the YSU school psychology program, candidates during the first year of study complete coursework in counseling, educational, and psychological foundations at the master's level.

For more information about the Department of Counseling, School Psychology and Educational Leadership, contact the Department Office at 330-941-3257 or visit our Department website (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-education/department-counseling-special-education-school-psychology>).

## Welcome

Our program is designed to prepare graduates with the necessary knowledge, skills, and dispositions to serve as school psychologists. Youngstown State University offers a Master of Education in Intervention Services as the initial degree required for admission to the Educational Specialist in School Psychology program. The School Psychology program at YSU enrolled its first class of candidates in 2012 and graduated its first class of School Psychologists in August 2015. Graduate students will find a unique educational experience that prepares them for a career in School Psychology. I encourage you to review the website and to contact the program director below.

Jake J. Protivnak, Ph.D.  
Chair / Professor  
Department of Counseling, School Psychology and Educational Leadership  
330-941-1936  
jjprotivnak@ysu.edu

## Program Director

For specific questions about the School Psychology program, please contact the program director:

Richard W. VanVoorhis, D.Ed., NCSP, Associate Professor  
3212 Beeghly College of Education  
(330) 941-3266  
rwvanvoorhis@ysu.edu

## Accreditation

An application for the initial National Association of School Psychologists (NASP) approval will be submitted during Fall 2017. Programs must first complete a three year cycle producing graduates before application may be made for full NASP approval.

## Admission Requirements

The Youngstown State University school psychology program is a cohort-based program and will accept students on a full-time basis. Part-time positions in the program are limited and are only considered when space is available. The first year of the program commences during the summer. The requirements for applying to the YSU School Psychology program are:

- Successful completion of the YSU Master of Education in Intervention Services, demonstration of successful skills and dispositions, as evidenced by grades and disposition ratings throughout the program, and a successful Ed.S. admissions interview.

## Graduate Faculty

**Kathleen Aspiranti, Ph.D.**, Assistant Professor  
School-based behavioral and academic interventions; response to intervention; autism spectrum disorders; curriculum-based measurements in reading

**Carrie R. Jackson, D.Ed.**, Assistant Professor  
Applied behavior analysis; autism spectrum disorders; neuropsychology; transition planning/vocational assessment

**Richard W. VanVoorhis, D.Ed.**, Associate Professor  
Role and function of school psychologists; career development and counseling topics; special education service delivery; low incidence disabilities; assessment and identification issues

## Requirements for Ed.S. Degree in School Psychology

Successful completion of the following 54 credit semester hours as listed below:

- Successful completion of 22 required credit semester hours;
- successful completion of 11 practicum required credit semester hours;
- successful completion of 21 internship credit semester hours;
- successful completion of EDS comprehensive exam;
- approval of professional internship competency notebook; and
- successful completion of Change Project (Capstone experience partial fulfillment of SPSY 7512 Internship/Supervised Experience 1, SPSY 7513 Internship/Supervised Experience 2, and SPSY 7514 Internship/Supervised Experience 3 requirements).

## Required Courses for the Education specialist Degree in School Psychology

COURSE	TITLE	S.H.
<b>Required Courses</b>		
SPSY 7500	Dynamic Assessment 1	3
SPSY 7503	Dynamic Assessment 2	3
SPSY 7506	Consultation Approaches to Treatment in Schools	3
SPSY 7507	Classroom Assessment and Decision Making	3
SPSY 7508	Neuropsychology, Low Incidence and Learning Behavior	3
SPSY 7509	Family Systems Within an Educational Context	3
SPSY 7510	Professional Development Seminar in School Psychology	1
SPSY 7511	School Psychology Internship Studies	3
<b>Practicum Courses</b>		
SPSY 7501	Dynamic Assessment Practicum in School Psychology 1	3
SPSY 7502	Cognitive Observation Practicum	2
SPSY 7504	Dynamic Assessment Child Study Practicum 2	3
SPSY 7505	Dynamic Assessment Advanced Child Study Practicum 3	3
<b>Internship Courses</b>		
SPSY 7512	Internship/Supervised Experience 1	6
SPSY 7513	Internship/Supervised Experience 2	6
SPSY 7514	Internship/Supervised Experience 3	3
SPSY 7515	Advanced Seminar in School Psychology 1	3
SPSY 7516	Advanced Seminar in School Psychology 2	3
<b>Total Semester Hours</b>		<b>54</b>

## Learning Outcomes

1. Candidates will have knowledge and applied skills necessary to demonstrate school based data-based decision making and accountability.
2. Candidates will have knowledge and applied skills necessary to demonstrate effective consultation and collaboration.
3. Candidates will have knowledge and applied skills necessary to promote interventions and instructional support to develop student academic skills.
4. Candidates will have knowledge and applied skills necessary to promote interventions and mental health services to develop student social and life skills.
5. Candidates will have knowledge and applied skills necessary to promote school wide practices to promote learning.
6. Candidates will have knowledge and applied skills necessary to promote family-school collaboration services.
7. Candidates will have knowledge necessary to understand diversity in development and learning.
8. Candidates will have knowledge and applied skills necessary to conduct research and program evaluation.



9. Candidates will have knowledge and applied skills necessary to understand and demonstrate appreciate legal, ethical, and professional practice.

## Graduate Courses

### **SPSY 5965 School of Psychology Workshop - Special Topics 1-5 s.h.**

Selected topics related to intervention and current interest in the school of psychology field of study. Grading is S/U.

### **SPSY 6901 System-Wide Consultation/Collaboration in the Schools 3 s.h.**

Current educational practices have made collaboration an essential way education professionals do their work. This course will cover the theoretical bases and consultation/collaboration skills necessary for affecting change in the educational environment from a system wide perspective. The aim of this course is to prepare Intervention Services students to function as collaborative consultants promoting systematic and planned strategies for use within the public schools and with families with children with disabilities.

### **SPSY 6902 School Organization, Classroom Analysis, Cross-Categorical Settings 3 s.h.**

Provides students in the school psychology program with the opportunity to observe and participate in educational regular education (K-12) and special education settings (SLD, CD, ED, MH, Autistic clinics, for B-21 years of age) in order to understand the organization of educational institutions they will ultimately serve as well as student population characteristics to understand the organization of educational institutions they will ultimately serve.

### **SPSY 6904 Crisis Counseling 3 s.h.**

An overview of the professional concerns and issues school psychologists face working in public school systems. Orientation and preparation for the supervised internship experience will be discussed; future responsibilities as a professional and staff consultant. Legal and ethical issues pertaining to the role of a school psychologist will be reviewed.

### **SPSY 6905 Cultural/Ethnic Issues Relating to Youth and Families 3 s.h.**

Introduces pertinent theoretical cultural issues which relate to mental health professionals as they work with diversified populations. In particular, therapeutic skill enhancement of professionals will be advanced, since all counseling may be seen as cross-cultural. Group work and experiential exercises will provide an avenue for the professional and personal cultural growth of each participant. The goal is to also enhance participant's level of cultural sensitivity.

### **SPSY 6906 Role and Function of a School Psychologist 3 s.h.**

An overview of the professional concerns and issues school psychologists face working in public school systems. Orientation for a supervised internship experience will be discussed; future responsibilities as a professional and staff consultant. Historical, legal and ethical issues pertaining to the role of a school psychologist will be reviewed.

### **SPSY 6907 Comprehensive Readings in School Psychology 3 s.h.**

Provides supervised readings and class discussions in preparation for the master's comprehensive examination.

### **SPSY 6909 Assessment and Intervention for Students with Low Incidence Disabilities 3 s.h.**

Emphasis will be on current most effective practices of the professional collaboration process across three tiers of service to include specific models and strategies for students in general education and especially those with autism and/or a low incidence disability. Candidates will develop a team training model and will evaluate evidence-based practices.

### **SPSY 6911 International Area Study: Project Learning Around the World 3 s.h.**

This course is designed to enhance mental health or teacher's professional and personal level of sensitivity and competence via introducing them to innovative and traditional forms of intervention or healing in community and school settings in a developing country. Students will participate in philanthropic activities by helping to gather and deliver educational supplies via Project Learning Around the World ([www.platw.org](http://www.platw.org)).

### **SPSY 6912 Multilevel Tier Interventions Across General Education and Special Education Programming 3 s.h.**

Direct experiences in planned multilevel interventions across the three tiers of services within educational school systems for regular education and children with disabilities. Participation in RTI team meetings, curriculum academic and applied and functional behavioral analysis, progress monitoring, goal attainment scaling and determining effectiveness of intervention plans will be introduced.

### **SPSY 7500 Dynamic Assessment 1 3 s.h.**

This course is designed for the school psychology student and includes the administration and interpretation of intelligence tests. The goal of this course is to provide students with a series of experiences which will lead to student mastery in the administration, scoring, and interpretation of various cognitive instruments and one achievement test.

**Concurrent:** SPSY 7501 and SPSY 7502.

### **SPSY 7501 Dynamic Assessment Practicum in School Psychology 1 3 s.h.**

Supervised experience in the administration and scoring of cognitive assessment protocols and demonstration of behavioral observation recording.

**Concurrent:** SPSY 7500 and SPSY 7502.

### **SPSY 7502 Cognitive Observation Practicum 2 s.h.**

Supervised experience in the administration of various psychological instruments.

**Prereq.:** SPSY 7500 and SPSY 7501 concurrently.

### **SPSY 7503 Dynamic Assessment 2 3 s.h.**

This course is designed to provide school psychology candidates with a theoretical foundation and the attainment of assessment skills in the areas of achievement, perceptual-motor, receptive, expressive, written language skills, behavioral, self-concept, emotional, developmental history and adaptive behavior assessment.

**Prereq.:** Candidates must have obtained a "B" or better and reached competence in SPSY 7500, SPSY 7501, and SPSY 7502.

**Concurrent:** SPSY 7504 and SPSY 7505.

### **SPSY 7504 Dynamic Assessment Child Study Practicum 2 3 s.h.**

Candidates are provided supervised practicum experience utilizing a systematic, ecological approach to child study.

**Prereq.:** Candidates must have obtained a "B" or better and reached competence in SPSY 7500, SPSY 7501, and SPSY 7502.

**Concurrent:** SPSY 7503 and SPSY 7505.

### **SPSY 7505 Dynamic Assessment Advanced Child Study Practicum 3 3 s.h.**

Candidates are provided with advanced supervised practicum experiences in school systems in the area of child study.

**Prereq.:** Candidates must have obtained a "B" or better and reached competence in SPSY 7500, SPSY 7501, and SPSY 7502.

**Concurrent:** SPSY 7503 and SPSY 7504.

### **SPSY 7506 Consultation Approaches to Treatment in Schools 3 s.h.**

This course presents assessment procedures for ecological contexts and client needs within school contexts.

**Concurrent:** SPSY 7507.

### **SPSY 7507 Classroom Assessment and Decision Making 3 s.h.**

The purpose of this course is to analyze and assess problems related to classroom learning environments, to plan programs to enhance environments, and to implement as well as evaluate plans. The aim of this course is to prepare school psychology students to function effectively within public school classrooms by applying various consultation models.

**Concurrent:** SPSY 7506.

### **SPSY 7508 Neuropsychology, Low Incidence and Learning Behavior 3 s.h.**

This course is designed to provide the basics of neuroanatomy, specifically, in terms of brain organization and neurological development.

**Prereq.:** SPSY 7500, SPSY 7501, and SPSY 7502.

### **SPSY 7509 Family Systems Within an Educational Context 3 s.h.**

The focus of the didactic and experiential course will be on identifying patterns of children's symptoms, repositioning of the therapist within the educational system context and learning of various therapeutic techniques to use with families of children with disabilities or other mental health issues.

**SPSY 7510 Professional Development Seminar in School Psychology 1 s.h.**

This course is designed to prepare and ready school psychology candidates for their proposed internship assignment.

**SPSY 7511 School Psychology Internship Studies 3 s.h.**

Supervised readings and class discussions in preparation for a 1400-clock-hour internship in school psychology.

**SPSY 7512 Internship/Supervised Experience 1 6 s.h.**

Designed for those candidates who have been assigned a 1400-clock-hour internship in the state of Ohio under field and university supervision. 6 s.h. 6 s.h.

**SPSY 7513 Internship/Supervised Experience 2 6 s.h.**

Designed for those candidates who have been assigned a 1400-clock-hour internship in the state of Ohio under field and university supervision. 6 s.h. 6 s.h.

**SPSY 7514 Internship/Supervised Experience 3 3 s.h.**

Designed for those candidates who have been assigned a 1400-clock-hour internship in the state of Ohio under field and university supervision. 6 s.h. 6 s.h.

**SPSY 7515 Advanced Seminar in School Psychology 1 3 s.h.**

First of two-semester seminars (special topics related to school psychology internship, child study, serving low incidence populations, consultation, RTI and other topics related to the internship experience).

**Prereq.:** concurrent with SPSY 7512.

**SPSY 7516 Advanced Seminar in School Psychology 2 3 s.h.**

Second of two-semester seminars (special topics related to school psychology internship, child study, serving low incidence populations, consultation, RTI and other topics related to the internship experience).

**Prereq.:** concurrent with SPSY 7513.

## Master of Accountancy

### Program Director

Dr. Raymond J. Shaffer  
rjshaffer@ysu.edu

### Program Description

The Master of Accountancy (MAcc) degree is designed to promote advanced professional competencies and to enhance opportunities for career success. Heavy emphasis is placed on the application of theory to actual practice so that graduates will immediately be able to add value to business organizations. Graduates will meet Ohio and Pennsylvania State Board of Accountancy requirements to sit for the Uniform CPA Examination. In addition, the program will help prepare graduates to sit for other professional exams such as the CMA (Certified Management Accountant) exam. The 30-hour MAcc program can be completed in two semesters of full-time study, or may be completed on a part-time basis.

### Admission Requirements

Students with a minimum overall GPA of 3.0 and a minimum accounting GPA of 3.0 will be granted direct admission into the MAcc Program. Students with an overall GPA or accounting GPA between 2.7 and 2.99 may be granted provisional admission as provided by YSU Graduate College admission policies. Students with a GPA below 2.7, either overall or in accounting, will be required to pass foundational coursework to be considered for admission to the MAcc Program and as a requirement for provisional admission. Students with an overall GPA below 2.7 will be required to take the GRE or GMAT to be considered for admission.

As part of the online Graduate Admission application and College of Graduate Studies requirements, applicants to the MAcc Program should submit a letter of application, a current resume/vita, and at least two letters of

recommendation which speak to the applicant's capacity and ability to successfully complete a graduate degree program in accounting.

Students without an undergraduate major in accounting must have completed the following prerequisite coursework with a grade of "C" or better: Intermediate Accounting I & II, Federal Income Taxation, Cost Accounting, Accounting Information Systems (AIS), and Auditing. The Program Director will oversee the admission process to ensure student success and overall high-quality of the MAcc program.

Students with a major in accounting where the relevant undergraduate accounting coursework (major accounting courses) was taken several years ago and/or do not have recent, substantial, relevant accounting experience (as judged by the Program Director) should consider taking foundational coursework to be successful in the MAcc Program.

## Graduate Faculty

**Huaiyu (Peter) Chen**, Ph.D., Associate Professor  
Equity market; abnormal return

**Marsha M. Huber**, Ph.D., Associate Professor  
Tax compliance; education; work-life balance

**Karin A. Petruska**, Ph.D., Associate Professor  
Financial accounting and reporting; international accounting; earnings quality and disclosure; analyst following; forensic accounting

**Jeremy T. Schwartz**, Ph.D., Assistant Professor  
Practice-based case studies; public pensions

**Fran Marie Wolf**, Ph.D., Professor  
Financial management; advanced financial analysis

## Degree Requirements

COURSE	TITLE	S.H.
Required Courses		20
ACCT 5814	Federal Taxation 2	3
ACCT 5820	Government and Funds Accounting	3
ACCT 6930	Financial Accounting Regulation	3
ACCT 6945	Accounting Ethics and Professionalism	2
ACCT 6970	Capstone Experience	4
MGT 6945	Business Process Integration	2
BUS 6940	Data Analytics and Data Management	3
Recommended Track CPA Public		10
ACCT 6972	Audit Theory Review and Practice	2
ACCT 6974	Financial Accounting Theory Review and Practice	2
Electives		6
Recommended Track CMA-Corporate		10
FIN 6902	Financial Accounting and Finance for Decision Making	1
FIN 6923	Corporate Financial Management	2
FIN 6953	Advanced Financial Analysis	3
MBA 6931	Effective Business Communication	1
Elective		3
Total Required Hours		30
Graduate Elective Course Options		
ACCT 6922	Accounting for Managerial Decisions	2
ACCT 6935	Research Accounting and Tax	3
ACCT 6910	Business Internship	1-3
ACCT 6915	Estate Planning	3
ACCT 6950	Fraud Examination	3

ACCT 6968	Special Topics in Accounting	1-3
FIN 6945	Business Valuation	3

## Learning Outcomes

1. Acquire advanced knowledge of accounting.
2. Recognize ethical issues considered in a business context.
3. Be able to communicate in a business appropriate manner.
4. Utilize relevant information resources to support decision making.

## Graduate Courses

### ACCT 5814 Federal Taxation 2 3 s.h.

Study of current Federal income tax law applying to proprietorships, corporations, S corporations, and partnerships. Includes fundamentals of researching tax law and preparing business tax returns. 2.5 overall GPA.

**Prereq.:** "C" or better in ACCT 4813.

### ACCT 5820 Government and Funds Accounting 3 s.h.

Generally accepted accounting principles for not-for-profit and governmental organizations as established by the appropriately recognized, standard-setting bodies. Includes state and local governments, school districts, colleges and universities, hospitals, voluntary health and welfare organizations, and others.

**Prereq.:** "C" or better in ACCT 3701 and 2.5 overall GPA.

### ACCT 6901 Financial Accounting Decision Making 2 s.h.

A survey of the fundamental concepts of financial accounting employed by general managers.

**Prereq.:** Permit required.

### ACCT 6905 Business Tax Planning and Research 1 3 s.h.

A study of the tax planning process and how it relates to employee and employer matters including, but not limited to, the alternative minimum tax, personal holding companies, unreasonable accumulations of earnings, depreciation recapture, retirement structuring, tax credits, taxation of international persons, and estate tax issues, including both lifetime and testamentary transfers. Paper and electronic research media will be utilized along with various formats for presentation of results.

**Prereq.:** ACCT 5814 or equivalent.

### ACCT 6908 Auditing Theory and Practice 3 s.h.

A study of auditing standards and procedures, use of statistical and other quantitative techniques, and auditing electronic data processing installations. Other topics include practice before the Securities and Exchange Commission, special reporting problems, current developments in auditing, professional ethics and responsibilities, and extensions of the attest function.

**Prereq.:** ACCT 4808 Auditing or equivalent.

### ACCT 6909 Management Information and Control Systems 3 s.h.

A study of the formalized set of interrelated methods, procedures, and equipment utilized in developing, processing, storing, and reporting business financial and statistical information. The major emphasis is on computerized systems, although some attention is also given to manual operations and/or subsystems.

**Prereq.:** MGT 6900 and FIN 6900 or equivalent.

### ACCT 6910 Business Internship 1-3 s.h.

Provides graduate students the opportunity to relate theory to practice through on-the-job work experience with a participating organization. The internship will serve as an elective MBA course.

**Prereq.:** Completion of level I MBA coursework and six semester hours of level II MBA coursework.

### ACCT 6912 Advanced Management and Cost Accounting 3 s.h.

An examination of the managerial uses of accounting information for planning and control, and an investigation of cost accounting theory and practice.

**Prereq.:** ACCT 3711 Cost Accounting or equivalent.

### ACCT 6915 Estate Planning 3 s.h.

A study of estate and gift tax law including tax return preparation. Emphasis on the importance of estate planning and the devices available for use in such planning, and effective uses of lifetime gifts, trusts, life insurance, pension plans, profit sharing, and other fringe benefit plans. The effects of state inheritance tax and property laws upon estate planning will be included.

**Prereq.:** "C" or better in ACCT 4813 or equivalent.

### ACCT 6922 Accounting for Managerial Decisions 2 s.h.

Capital budgeting. Product costing. Pricing. Relevant and timely accounting information associated with these is necessary to make informed decisions.

To improve their managerial decision making capabilities, participants will learn to examine, prepare and interpret accounting reports from the perspective of the manager of an organization.

**Prereq.:** Graduate standing.

### ACCT 6925 Oil and Gas Accounting 3 s.h.

A study of the accounting and taxation principles and procedures of the petroleum industry. Topics include exploration, leasing, drilling and production problems.

**Prereq.:** "C" or better in ACCT 2603 or FIN 6902.

### ACCT 6930 Financial Accounting Regulation 3 s.h.

The major objective of the course is to enable students to understand both the theoretical and practical aspects of compliance and regulation. Emphasis is on financial statement regulation and standard setting, including differences in financial measurement and reporting practices that exist in the U.S. and internationally. The course will examine how effective governance systems are implemented within all forms of organizations.

**Prereq.:** Graduate standing.

### ACCT 6935 Research Accounting and Tax 3 s.h.

A study of the practical research process, providing useful guidance and information in conducting professional accounting and tax research. A broad range of case analyses allows a focus on current topics in the accounting profession.

**Prereq.:** "C" or better in ACCT 3702 and ACCT 4813.

### ACCT 6945 Accounting Ethics and Professionalism 2 s.h.

This course will include coverage of professional ethics in accounting, practice development in accounting (including services marketing), and accounting-related career success skills. The course will be a combination of personal reflection, cases, lectures, outside guests (from accounting firms and entities and those that hire them), and a project identifying a development challenge faced by accountants with recommendations on what should be done.

**Prereq.:** Graduate Standing.

### ACCT 6950 Fraud Examination 3 s.h.

A study of occupational fraud and abuse. Topics include asset misappropriation schemes, corruption, and fraudulent statements, including fraudulent financial statements. Coverage includes implications for the fraud examiner and corporate management.

**Prereq.:** ACCT 2602 or FIN 6902.

### ACCT 6960 Seminar in Accounting 2 s.h.

Specific topics selected by the staff from timely and controversial work published in the field.

**Prereq.:** All core courses, plus at least six hours (6900-level) in accounting or permission of instructor.

### ACCT 6968 Special Topics in Accounting 1-3 s.h.

Topics may vary from semester to semester and will be announced with prerequisites and hours. May be repeated.

### ACCT 6968R Special Topics in Accounting Integrating Design Thinking with Accounting Decision Making 1-3 s.h.

Topics may vary from semester to semester and will be announced with prerequisites and hours. May be repeated.

### ACCT 6970 Capstone Experience 4 s.h.

A culmination of learning experiences necessary for accounting professionals. Strong emphasis will be placed upon the CPA/CMA exam experience. An integrative, team-based project will be required. Program level : ACCT 5814, ACCT 6930, completion of at least 12 hours of MAcc coursework.

**ACCT 6972 Audit Theory Review and Practice 2 s.h.**

A culmination of learning experiences in the auditing area necessary for accounting professionals, with a strong emphasis placed upon the CPA (Certified Public Accountant) exam in the financial accounting areas. An integrative, practice-based project in auditing will be required.

**Prereq.:** undergraduate major in accounting or its equivalent.

**ACCT 6974 Financial Accounting Theory Review and Practice 2 s.h.**

A culmination of learning experiences in the financial accounting area necessary for accounting professionals, with a strong emphasis placed upon the CPA (Certified Public Accountant) exam in the financial accounting area. An integrative, practice-based project in financial accounting will be required.

**Prereq.:** undergraduate major in accounting or its equivalent.

**ACCT 6975 Business Tax Planning 2 2 s.h.**

This course continues the study of income tax laws concerning corporations generally, including Subchapter S corporations, corporate reorganizations, partnership taxation, and tax administration and practice.

**Prereq.:** ACCT 6905.

**ACCT 6980 Governmental and Nonprofit Accounting 2 s.h.**

A study of accounting systems for federal, state, and local governmental agencies and other not-for-profit organizations. (Not available for credit to students who have had ACCT 4820.)

**Prereq.:** FIN 6900 Government and Funds Accounting or equivalent.

**ACCT 6996 Research Problems 1-4 s.h.**

Special research project under the supervision of a graduate faculty member. Credit will be determined in each case in light of the nature and extent of the project.

**Prereq.:** Fifteen hours of level II MBA coursework or permission of MBA director.

## Master of Arts in American Studies

### Program Director

Dolores V. Sisco  
245 DeBartolo Hall  
(330) 941-3422  
dvsisco@ysu.edu

### Program Description

The Master of Arts in American studies program is designed to provide students with training in the content, theory, and methods for studying the history and culture of the United States and is designed to provide both training and experience in developing and implementing public humanities and educational programs. Special emphasis is placed on the application of the humanities in community, museum, and school settings. The program offers a core of courses in American studies, art and literature, history, working-class studies, and public practice, along with opportunities to work in local museums, schools, community projects, and other public humanities programs. Courses for the program have been drawn from five different colleges, providing students the chance to gain a truly broad and diverse education while deepening their knowledge of American culture. The M.A. in American studies also offers a teaching track designed for secondary school teachers.

### Admission Requirements

Students must have a cumulative grade point average in undergraduate study of 3.0 (on a 4.0 scale). The bachelor's degree may be in any field, but students should have taken at least 12 hours of upper-division coursework in some combination of the arts, humanities, and/or social sciences. Applicants must include a personal statement detailing goals and decision for pursuing graduate study in American Studies.

### Graduate Faculty

**Donna M. DeBlasio**, Ph.D., Professor

Twentieth-century US history; applied history; oral history

**John M. Hazy**, Ph.D., Professor

Community health; life course issues; teaching effectiveness

**Martha Pallante**, Ph.D., Professor

Early American studies; material culture; pedagogy

**Linda J. Strom**, Ph.D., Associate Professor

## Degree Requirements

Students must complete 36 semester hours of coursework at the graduate level.

COURSE	TITLE	S.H.
<b>Required Core Courses</b>		
AMER 6900	Approaches to American Studies	3
AMER 6990	Independent Project <sup>1</sup>	3
<b>Practice Area</b>		
Select two credits from one of the following tracks:		6
Teaching Track		
Select two of the following:		
AMER 6970	Teaching Working-Class Studies	
AMER 6975	Interdisciplinary Teaching	
ENGL 6906	Teaching of Literature	
ENGL 6907	Teaching of Writing	
ENGL 6974	English Education Workshop	
ENGL 6976	Studies in English Education	
HIST 6950	Studies in the Teaching of History	
Public Practice Track		
SED 6935	Curriculum Development in VBME	
AMER 6930	Humanities in the Community	
AMER 6980	Public Humanities Internship	
<b>Focus Area</b>		
Select at least four courses from one of the following areas:		12
Cultural Studies		
ANTH 6910	Special Anthropological Problems	
ART 5881	Twentieth Century Art to 1960	
ART 5882	Twentieth Century Art from 1960	
ENGL 6915	Early American Studies	
ENGL 6917	Nineteenth-Century American Studies	
ENGL 6922	Twentieth-Century American	
ENGL 6923	Working Class Literature	
ENGL 6965	Studies in Film	
FNLG 6900	Seminar	
HIST 5806	American Architectural History 1	
HIST 5807	American Architectural History 2	
HIST 6940	Oral History	
SOC 6900	Special Sociological Problems	
American History		
FOUN 6905	Educational Challenges in Historical Perspective	
HIST 6910	Readings in American History	
HIST 6912	Research Seminar in American Colonial History	
HIST 6913	Research Seminar in 19th-Century America	
HIST 6914	Research Seminar in 20th-Century America	
HIST 6941	American Material Culture	
Working-Class Studies		
AMER 5850	Class and Culture	
AMER 6910	Introduction to Working-Class Studies	

AMER 6970	Teaching Working-Class Studies	
ENGL 6923	Working Class Literature	
HIST 6939	Labor in US History	
HIST 6945	Interpretation and Preservation of the Industrial Built Environment	
<b>Public History</b>		
CJFS 6960	Program Planning and Evaluation	
EDAD 6933	Educational Policy, Politics, and Change	
ENGL 6944	Document Design and Production	
ENGL 6953	Publications Issues and Management	
ENGL 6992	Professional Communication	
HIST 5810	Conservation of the Historic Built Environment	
HIST 6942	Applied History	
HIST 5810	Conservation of the Historic Built Environment	
HIST 6942	Applied History	
HIST 6943	Practicum in Applied History	
HIST/ENGL 6946	Historical Editing	
HIST 6955	Museum Curation and Interpretation 1	
HIST 6956	Museum Curation and Interpretation 2	
HIST 6957	Special Topics in Applied History	
<b>Distribution Requirement</b>		
Select four additional course with at least one from each of the other focus areas above.		12
<b>Total Semester Hours</b>		<b>36</b>

- <sup>1</sup> The required course, AMER 6990 Independent Project in American Studies, requires each student to complete an independent project, such as:
- a major research project,
  - the design and promotion of a special exhibit at a museum,
  - the development of an education program at a local library, or
  - the completion of a planning project in cooperation with a local community development agency.

Students will work closely with a committee of YSU faculty and community specialists to design and implement their individual projects.

## Learning Outcomes

1. Students will analyze the various ways in which American culture is complex and diverse. Understanding American culture requires attention to how American diversity is reflected in the ideas, events, trends, texts, and issues created and used by Americans in everyday life as well as in community life and politics.
2. Students will explore and practice strategies for doing interdisciplinary analysis, which relies on the development of complex inquiry, selection of appropriate materials and concepts from a wide array of options, and the application of appropriate methods for interpreting and integrating diverse sources.
3. Students will create papers and projects in courses that demonstrate their ability to effectively communicate cultural knowledge and analyze why and how their choices are effective. This requires students to make appropriate choices about format, content, organization, and the use of evidence based on one's purpose, audience, and situation.
4. Students will develop connections between campus and community through papers, projects, and internships that apply the academic work to realms beyond the academy.
5. Students will plan, develop, write, and publicly present original research through their independent (thesis) projects.
6. Students will acquire professional experiences appropriate to the field of American Studies.

## Graduate Courses

### AMER 5845 Work in America 3 s.h.

Examines the changing characteristics, expectations, and representations of work in America. Includes the exploration of demographic, historic, economic, technological, sociological, religious, ethical, popular, and poetic perspectives on work.

**Prereq.:** junior standing.

**Cross-listed:** MGT 5845.

### AMER 5850 Class and Culture 3 s.h.

Theories of social class structure and formation, relationships between class and culture, representations of class and work, intersections of class with other aspects of cultural identity (race, gender, sexuality, place), and theories and methods of working-class studies.

**Prereq.:** graduate standing or AMER 3701.

### AMER 6900 Approaches to American Studies 3 s.h.

Introduction to American studies with emphasis on history of the field, interdisciplinary approaches, and cultural diversity.

### AMER 6910 Introduction to Working-Class Studies 3 s.h.

Introduction to developments, approaches, and issues in new working-class studies, including intersections of class with other categories of identity, disciplinary and interdisciplinary perspectives, representations of the working class in the arts and media, and political and economic constructions of class.

### AMER 6930 Humanities in the Community 3 s.h.

Opportunities, challenges, and strategies for developing, promoting, and implementing public humanities projects in various settings, including community development and organizing, community-based adult education, and programs in museums and other public humanities organizations.

**Prereq.:** AMER 6900.

### AMER 6970 Teaching Working-Class Studies 3 s.h.

Interdisciplinary teaching strategies focused on incorporating attention to work, class, diversity, and local history and culture into K-12 and college courses.

### AMER 6975 Interdisciplinary Teaching 3 s.h.

Introduction to interdisciplinarity and its application in the classroom with emphasis on integration of humanities and social sciences.

### AMER 6980 Public Humanities Internship 3 s.h.

Supervised work-and-learning experience in American studies under the direction of an American studies core faculty member and an employee of a participating organization.

### AMER 6982 Special Topics 3 s.h.

Specialized topics selected by the staff. May be repeated once with a different topic.

**Prereq.:** Permission of the American studies program coordinator and instructor.

### AMER 6985 Independent Study 3 s.h.

Individual study in American studies or a related discipline under the supervision of a faculty member. May be repeated once.

**Prereq.:** Permission of the American studies program coordinator and instructor.

### AMER 6990 Independent Project 1-3 s.h.

Completion of individual project in a community or school setting. May be repeated for a maximum of three semester hours.

**Prereq.:** Proposal and review meeting with committee.

## Master of Arts in Art Education

### Program Director

Samuel Adu-Poku, Ph.D., Professor  
4089 Bliss Hall  
(330) 941-1866  
sadupoku@ysu.edu

## Program Description

The Master of Arts in Art Education program is designed to give art educators an opportunity to further develop artistic, pedagogical, scholarly, research, and leadership capabilities through in-depth study in studio, art history and art education theory. The M.A. in Art Education can be applied towards doctoral study, National Board Certification, Ohio Senior Educator or Lead Educator Licensure, and professional licensure in other states. Special emphasis is placed on the extension of specialized studio experiences in a variety of areas, including:

- painting,
- printmaking,
- sculpture,
- ceramics,
- graphic design, and
- photography.

Coursework combines studio practice and art history with art education theory, research, and classroom pedagogy to strengthen the capacities of teachers to create dynamic K-12 visual art programs. This integrated approach to the exploration of studio, arts-based educational research, technological, historical, socio-cultural, and contemporary issues in art and art education leads students to a fuller understanding of the challenges and opportunities of contemporary art education.

## Accreditation

The Master of Arts in Art Education is accredited by the National Association of Schools of Art and Design (NASAD).

## Application Deadline

Summer Admission	February 15
Fall Admission	May 15
Spring	October 15

## Admission Requirements

In addition to the admission requirements of the College of Graduate Studies, applicants must meet the following requirements:

- an undergraduate degree in art education and teacher certificate or professional teaching license;
- a cumulative undergraduate grade point average of 3.00 on a 4.00 scale;
- a minimum of two years of teaching experience preferred;
- three original letters of recommendation;
- 10-12 color images of personal artwork (digital copy);
- a statement of purpose of approximately 250 words indicating intent and proposed area of specialization within art studio and capstone project (studio project track or graduate thesis track);
- a personal interview with the Program Director and the Graduate Program Committee in the Department of Art may be required.

In some cases, remedial coursework in undergraduate studio art may be required by the Graduate Program Committee in the Department of Art before regular admission is granted. To obtain regular admission, the candidate must make up deficiencies by taking the appropriate undergraduate studio courses without graduate credit.

## Graduate Faculty

**Samuel Adu-Poku**, Ph.D., Professor

Art education; curriculum development; multicultural education; teacher education

**Dragana Crnjak**, M.F.A., Associate Professor

Painting; narrative work; drawing

**Richard Helfrich**, M.F.A., Assistant Professor  
Graphic and interactive design

**Missy McCormick**, M.F.A., Associate Professor  
3D studies; ceramics

**Christine E. McCullough**, M.F.A., Professor  
Painting; drawing

**Greg Moring**, M.F.A., Professor  
3D studies; sculpture

**Jonathan Dana Sperry**, M.F.A., Associate Professor  
Digital media

## Degree Requirements

Students must complete a minimum of 36 semester hours of graduate coursework consisting of:

- a graduate studio core,
- an art education core,
- a graduate research course,
- an art history elective, and
- a capstone project in the form of either a written thesis or a graduate studio art exhibition.

Research projects are supervised by art education and studio art faculty and should be oriented toward the scholarly integration of theory and practice. As a culminating experience, students must complete either an exhibition combined with a professional talk and an artist's statement, or an oral examination based on a written thesis.

## Research Thesis Track

COURSE	TITLE	S.H.
<b>Graduate Studio Core</b>		
Art Studio Courses		
Select a minimum of 18 semester hours in two and/or three-dimensional Art Studio Courses including at least 9 hours in a single graduate studio area of concentration and an additional 9 hours of electives to be chosen from other graduate studio areas to provide breadth. <sup>1</sup>		18
ART 6910 & ART 6911 & ART 6912	Studio Problems in Sculpture and Studio Problems in Sculpture and Studio Problems in Sculpture	
ART 6930 & ART 6931 & ART 6932	Studio Problems in Ceramics and Studio Problems in Ceramics and Studio Problems in Ceramics	
ART 6940 & ART 6941 & ART 6942	Studio Problems in Printmaking and Studio Problems in Printmaking and Studio Problems in Printmaking	
ART 6950 & ART 6951 & ART 6952	Studio Problems in Painting and Studio Problems in Painting and Studio Problems in Painting	
ART 6970 & ART 6971 & ART 6972	Studio Problems in Photography and Studio Problems in Photography and Studio Problems in Photography	
ART 6980 & ART 6981 & ART 6982	Studio Problems Digital Media and Studio Problems Digital Media and Studio Problems Digital Media	
<b>Art Education and Art History Core</b>		
Select a minimum of 12-15 semester hours including a minimum of 15 hours in art education theory and an educational research course:		12-15

ART 6920	Historical and Philosophical Foundations of Art Education	
ART 6921	Current Issues, Perspectives, and Curriculum Practices in Art Education	
ART 6922	Graduate Seminar in Art Education	
<b>Educational Research Course</b>		
FOUN 6904	Introduction to Educational Research	
<b>Art History Electives</b>		
Select one of the following:		3
ART 5840	Topics in Ancient Art	
ART 5881	Twentieth Century Art to 1960	
ART 5882	Twentieth Century Art from 1960	
ART 6960	Special Topics in Art History	
<b>Research Thesis</b>		
Select 3-5 s.h. variable credits in field research or studio production and a written thesis based on individual need and research focus.		3-5
ART 6923	Graduate Art Thesis	
or ART 6924	Graduate Studio Project and Exhibition	
<b>Total Semester Hours</b>		<b>36</b>

<sup>1</sup> Studio courses may be repeated and must be selected from more than one area of concentration. Studio courses may be taken in increments of 1-3 s.h. variable credits with faculty approval.

## Non-Research Thesis Track

COURSE	TITLE	S.H.
<b>Graduate Studio Core</b>		
Art Studio Courses		
Select a minimum of 18 semester hours in two and/or three-dimensional Art Studio Courses including at least 9 hours in a single graduate studio area of concentration and an additional 9 hours of electives to be chosen from other graduate studio areas to provide breadth: <sup>1</sup>		18
ART 6910 & ART 6911 & ART 6912	Studio Problems in Sculpture and Studio Problems in Sculpture and Studio Problems in Sculpture	
ART 6930 & ART 6931 & ART 6932	Studio Problems in Ceramics and Studio Problems in Ceramics and Studio Problems in Ceramics	
ART 6940 & ART 6941 & ART 6942	Studio Problems in Printmaking and Studio Problems in Printmaking and Studio Problems in Printmaking	
ART 6950 & ART 6951 & ART 6952	Studio Problems in Painting and Studio Problems in Painting and Studio Problems in Painting	
ART 6970 & ART 6971 & ART 6972	Studio Problems in Photography and Studio Problems in Photography and Studio Problems in Photography	
ART 6980 & ART 6981 & ART 6982	Studio Problems Digital Media and Studio Problems Digital Media and Studio Problems Digital Media	
<b>Art Education and Art History Core</b>		
Select a minimum of 10-15 semester hours including a minimum of 15 hours in art education theory and an educational research course:		10-15
ART 6920	Historical and Philosophical Foundations of Art Education	
ART 6921	Current Issues, Perspectives, and Curriculum Practices in Art Education	
ART 6922	Graduate Seminar in Art Education	
ART 6923	Graduate Art Thesis	
<b>Educational Research Course</b>		

FOUN 6904	Introduction to Educational Research	
<b>Art History Electives</b>		
Select one of the following:		3
ART 5840	Topics in Ancient Art	
ART 5881	Twentieth Century Art to 1960	
ART 5882	Twentieth Century Art from 1960	
ART 6960	Special Topics in Art History	
<b>Capstone Studio Project</b>		
ART 6924	Graduate Studio Project and Exhibition	5
<b>Total Semester Hours</b>		<b>36</b>

<sup>1</sup> Studio courses may be repeated and must be selected from more than one area of concentration. Studio courses may be taken in increments of 1-3 s.h. variable credits with faculty approval.

## Learning Outcomes

- Candidates demonstrate understanding of the connections between artistic and pedagogical practice, and can carry out Arts-Based or action research in their classrooms.
- Candidates demonstrate proficiency in personal artistic practice, including technical expertise and the capacity for content expression.
- Candidates can discriminate between and synthesize multiple sources of information to construct and demonstrate an understanding of the Field of Art Education, its history, and its place in the American educational system and political economy.

## Graduate Courses

### ART 5840 Topics in Ancient Art 3 s.h.

The art and architecture of the ancient cultures of the Mediterranean region and the Near East. Topics vary by semester, and include Egypt, the Ancient Near East, Greece, and Rome. May be taken twice if content is different.

**Prereq.:** Junior standing.

### ART 5850 Topics in Painting and Drawing 3 s.h.

Selected topics in advanced painting and drawing. Specific content varies by semester and includes Landscape and Interiors; Portraiture; and Personal Narrative. May be repeated with a different topic for a total of three times.

**Prereq.:** ART 2650 or portfolio presentation and permission of instructor.

### ART 5860 Topics in Design 3 s.h.

Selected topics in graphic design including typography, layout and computer applications. May be repeated for a total of three times with different topics.

**Prereq.:** Permission of instructor and portfolio.

### ART 5881 Twentieth Century Art to 1960 3 s.h.

A survey of the visual arts history of the 20th century beginning with its 19th century roots. The influential artists, movements, and motivating theories will be covered against a backdrop of world events. Primary emphasis is placed upon French Impressionism, German Expressionism, Fauvism, Surrealism, and American Abstract Expressionism.

**Prereq.:** ART 1542 or permission of instructor.

### ART 5882 Twentieth Century Art from 1960 3 s.h.

A survey of the visual arts history of the late 20th century beginning with those ideas and trends which followed Abstract Expressionism. Beginning with the late 1950s every principle artistic movement from Pop through post-Modernism will be explored against a backdrop of Post-War world events.

**Prereq.:** ART 1542 or permission of instructor.

**ART 6910 Studio Problems in Sculpture 1-3 s.h.**

Individual research of the technical, visual, conceptual, and aesthetic issues of contemporary sculpture. Professional studio practices are explored as well as conceptual art issues dealing with non-traditional formats, idea-oriented artworks and the notion of 'research,' and the blending of theoretical and material practice. Students develop a self-critical, articulate, and individual approach to solving aesthetic solutions to self-determined visual narratives and challenges. Repeatable for a maximum of six s.h.

**Prereq.:** Permission of instructor.

**ART 6911 Studio Problems in Sculpture 1-3 s.h.**

Emphasis on building on ideas researched in ART 6910 to develop greater conceptual, aesthetic, and technical sophistication. Directed readings and writing assignments in addition to professional studio practice are used to promote further development of individual approaches to solving aesthetic solutions to self-determined visual narratives and challenges. May be repeated for a maximum of six s.h.

**Prereq.:** ART 6910.

**ART 6912 Studio Problems in Sculpture 1-3 s.h.**

Students engage in the final phase of conceptual and technical refinement that will result in a cohesive body of work that demonstrates their conceptual direction and technical proficiency. Studio practice together with intense analytical discourse of current studio work and exhibition thesis drafts prepare students for the visual, written, and oral defense components of their ART 6924 capstone course experience. May be repeated for a maximum of 6 s.h.

**Prereq.:** ART 6911.

**ART 6920 Historical and Philosophical Foundations of Art Education 3 s.h.**

Evaluation of the historical, chronological, and philosophical developments in art education with emphasis on significant trends and movements which have impacted its growth and structure.

**Prereq.:** Graduate status.

**ART 6921 Current Issues, Perspectives, and Curriculum Practices in Art Education 3 s.h.**

A survey of current issues and legislative mandates that affect art education curriculum. Students will gain insight into curriculum development, implementation, and evaluation of art education programs.

**Prereq.:** Graduate status.

**ART 6922 Graduate Seminar in Art Education 3 s.h.**

Explores contemporary events, theories, issues, trends, and practices that are influencing the field of art education.

**Prereq.:** Graduate status.

**ART 6923 Graduate Art Thesis 1-5 s.h.**

Students will develop a thesis in one of three modes: scholarly thesis, studio inquiry and essay, or teaching project and report. Repeatable for up to 5 total semester hours.

**Prereq.:** Graduate status.

**ART 6924 Graduate Studio Project and Exhibition 1-5 s.h.**

A professional art exhibition and written artist statement as an exit requirement and an alternative to the graduate research thesis option. Activities will include design and production of artworks for exhibition, directed readings, portfolio development, written assignments including an artist statement, oral defense of exhibition, and faculty review. The 5 s.h. requirement can be fulfilled through enrollment in ART 6924 over successive semesters at between 1-5 s.h. credit; however, students are encouraged to complete the course within two semesters.

**Prereq.:** 18 studio credits.

**ART 6930 Studio Problems in Ceramics 3 s.h.**

Individual research in spatial arts imagery. Concentration on individual study in ceramic construction, firing process and calculation, formulation and firing of clay bodies, and low-fire and high-fire glaze systems. May be repeated for a maximum of six semester hours of credit.

**Prereq.:** Permission of instructor and evidence of previous work.

**ART 6931 Studio Problems in Ceramics 1-3 s.h.**

Continuation of ART 6930. May be repeated for a maximum of six semester hours of credit.

**Prereq.:** ART 6930.

**ART 6932 Studio Problems in Ceramics 1-3 s.h.**

Continuation of ART 6931. May be repeated for a maximum of six semester hours of credit.

**Prereq.:** ART 6931.

**ART 6940 Studio Problems in Printmaking 3 s.h.**

Individual research into monoprinting, intaglio etching, relief printing, silkscreen, lithography, and monotype. May be repeated for a maximum of six semester hours.

**Prereq.:** Portfolio presentation and permission of instructor.

**ART 6941 Studio Problems in Printmaking 1-3 s.h.**

Continuation of ART 6940. May be repeated for a maximum of six semester hours.

**Prereq.:** ART 6940.

**ART 6942 Studio Problems in Printmaking 1-3 s.h.**

Continuation of ART 6941. May be repeated for a maximum of six semester hours.

**Prereq.:** ART 6941.

**ART 6950 Studio Problems in Painting 3 s.h.**

Individual research of two-dimensional form through various media, including oil, acrylic, watercolor, collage, etc. May be repeated for a maximum of six semester hours credit.

**Prereq.:** Permission of instructor and evidence of previous work.

**ART 6951 Studio Problems in Painting 3 s.h.**

Continuation of ART 6950. May be repeated for a maximum of six semester hours credit.

**Prereq.:** ART 6950.

**ART 6952 Studio Problems in Painting 1-3 s.h.**

Continuation of ART 6951. May be repeated for a maximum of six semester hours credit.

**Prereq.:** ART 6951.

**ART 6960 Special Topics in Art History 3 s.h.**

Study in one of the many areas of art history. May be taken up to three times for credit if the topic is not repeated.

**ART 6960A Special Topics in Art History: 19th Century European 3 s.h.**

Study in one of the many areas of art history. May be taken up to three times for credit if the topic is not repeated.

**ART 6970 Studio Problems in Photography 3 s.h.**

Individual research of photography through selected technical and aesthetic photographic topics using a variety of approaches for advanced fine art applications. May be repeated for a maximum of six semester hours of credit.

**Prereq.:** Permission of instructor and documentation of previous work.

**ART 6971 Studio Problems in Photography 3 s.h.**

Continuation of ART 6970. May be repeated for six semester hours of credit.

**Prereq.:** ART 6970.

**ART 6972 Studio Problems in Photography 3 s.h.**

Continuation of ART 6971. May be repeated for six semester hours of credit.

**Prereq.:** ART 6971.

**ART 6980 Studio Problems Digital Media 3 s.h.**

Individual research in digital forms of expression through various media, including but not limited to printed digital collage, video and Internet-based projects. May be repeated for a maximum of six semester hours of credit.

**Prereq.:** Permission of instructor and documentation of previous work.

**ART 6981 Studio Problems Digital Media 3 s.h.**

Continuation of ART 6980. May be repeated for six semester hours of credit.

**Prereq.:** ART 6980.

**ART 6982 Studio Problems Digital Media 3 s.h.**

Continuation of ART 6981. May be repeated for six semester hours of credit.

**Prereq.:** ART 6981.



**ART 6990 Interdisciplinary Studio 1-6 s.h.**

Self-motivated graduate study informed by contemporary theory and discourse. Students follow a personal, self-proposed, conceptual direction and work independently, supported by faculty. First year placed on challenging traditional ideas about creative practice by connecting and integrating various creative processes, materials and methodologies. Through scheduled critiques students present and discuss their studio research with peers and faculty. Total of 6 s.h. with a minimum of two different faculty first year fall semester.

**Prereq.:** Admission to MFA program.

**ART 6991 Interdisciplinary Studio 2 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991A Interdisciplinary Studio 2: Ceramics 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991B Interdisciplinary Studio 2: Digital Media 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991C Interdisciplinary Studio 2: Painting/Drawing 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991D Interdisciplinary Studio 2: Painting 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991E Interdisciplinary Studio 2 Photography 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991F Interdisciplinary Studio 2: Printmaking 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991G Interdisciplinary Studio 2: Sculpture 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6992 Interdisciplinary Studio 3 1-6 s.h.**

Continuation of ART 6991. Self-motivated, individual studio practice. In the second year students begin research and practice leading to the MFA Thesis Project and Capstone. Total of 1 to 6 s.h. with a minimum of two different faculty second year fall semester.

**Prereq.:** ART 6991.

**ART 6993 Interdisciplinary Studio 4 1-9 s.h.**

Continuation of ART 6992. Self-motivated, individual studio practice. In the final semester students are focused on studio research and production of work for their MFA Thesis Project and Capstone. Total of 9 s.h. with a minimum of two different faculty second year spring and final semester.

**Prereq.:** ART 6992.

**ART 6994 Strategies in Interdisciplinary Practice 1 3 s.h.**

Through a wide range of readings and presentations, this course will explore the significant moments, theoretical foundations and current trends within interdisciplinary and collaborative visual art practices. These explorations will be paired with a series of long and short projects that demystify strategies and problems within the range of visual art practices discussed. The course will also discuss modes of content communication that exist across the different disciplines such as the use of specific symbols, materials, processes and context. While ideas and readings may link with the MFA seminar, this course is designed to give students a solid theoretical and practical foundation in an interdisciplinary studio art practice.

**Prereq.:** Admission to MFA program.

**ART 6995 Strategies in Interdisciplinary Practice 2 3 s.h.**

Through a wide range of readings and presentations, this course will expand on the dialogue from Strategies in Interdisciplinary Practice 1. These explorations will be paired with a series of long and short projects that demystify strategies and problems within the range visual art practices discussed. The course will also discuss modes of content communication that exist across the different disciplines, such as the use of specific symbols, materials, processes and context. While ideas and reading in this course may link and connect with the MFA seminar, this course is designed to build upon the solid theoretical and practical foundation built in Strategies in Interdisciplinary Practice.

**Prereq.:** ART 6994.

**ART 6996 Seminar in Interdisciplinary Theory 1 3 s.h.**

Covering the key concepts and topics of modern and contemporary critical theory, the course examines various aesthetic, cultural, political climates in relation to developments of interdisciplinary art practice. MFA Seminar should be taken in sequence and serve as a dynamic forum for student research, critique, discussion, and the conceptual foundation for their individual studio practices.

**Prereq.:** Admission to MFA program.

**ART 6997 Seminar Interdisciplinary Theory 2 3 s.h.**

Topic will rotate each semester and address key concepts and topics of modern and contemporary critical theory. The course provides various perspectives towards the understanding of interdisciplinary art practice and critical discourses within contemporary art culture. Students will investigate interconnections between philosophical and theoretical issues and the ways they inform and impact interdisciplinary art practice today. MFA Seminar should be taken in sequence and serve as a foundation for individual studio practices.

**Prereq.:** ART 6996.

**ART 6998 Seminar Interdisciplinary Theory 3 3 s.h.**

Topics will vary each semester and address key concepts and topics of modern and contemporary critical theory. The course provides ongoing discussion surrounding the understanding of interdisciplinary art practice and critical discourses within contemporary art culture. Students will investigate interconnections between philosophical and theoretical issues and the ways they inform and impact interdisciplinary art practice today. As the last course within MFA Seminary sequence, it serves as a foundation for individual studio practice.

**Prereq.:** ART 6996.

**ART 6999 MFA Thesis Project and Capstone Research 6 s.h.**

Programmatic exit requirement and culmination of the 60 credit MFA in Interdisciplinary Visual Arts. Activities include design and production of artworks for exhibition, directed readings, writing assignments including thesis and portfolio development, professional practices, exhibition design, oral thesis defense and faculty review.

**Prereq.:** permission of graduate advisor.

## Master of Arts in Economics

### Program Director

Dr. Ebenge Usip  
307 DeBartolo Hall  
(330) 941-1682  
eeusip@ysu.edu

### Program Description

The Master of Arts in economics program is designed to provide students with a background in applied economics which would lead to professional employment in business, government, or education. Special emphasis is placed on the use of data analysis to investigate public policy issues and business decisions. Supplemented by upper-level courses in mathematics, the program can also help prepare students for doctoral study in economics or related fields.

### Admission Requirements

In addition to the College of Graduate Studies admission requirements, applicants must have completed at least one course in each of the following areas:

- principles of microeconomics,
- principles of macroeconomics,
- statistics, and
- calculus.

Students who do not meet the requirements may be admitted on a provisional basis. Students with provisional admission are required to take undergraduate coursework to fulfill the admission requirements. With the permission of the Graduate Coordinator they may also be allowed to simultaneously take a limited number of masters-level courses.

### Combined Bachelors/Masters Program

Highly qualified undergraduate students can apply for admission into the combined "4+1" Bachelors/Masters program for the MA in Economics. See the description of the "4+1" program (p. 289) in the undergraduate catalog.

### Admission Requirements

In addition to the College of Graduate Studies admission requirements, applicants must have completed at least one course in each of the following areas:

- principles of microeconomics,
- principles of macroeconomics,

- statistics, and
- calculus.

Students who do not meet the requirements may be admitted on a provisional basis. Students with provisional admission are required to take undergraduate coursework to fulfill the admission requirements. With the permission of the Graduate Coordinator they may also be allowed to simultaneously take a limited number of masters-level courses.

## Graduate Faculty

**Ou Hu**, Ph.D., Professor

Financial markets; international finance; asset pricing

**Tomi P. Ovaska**, Ph.D., Professor

Public finance; comparative economic systems; entrepreneurship; international trade; behavioral economics

**Joseph Palardy**, Ph.D., Professor

Macroeconomics; time series econometrics

**Tod Porter**, Ph.D., Professor, Chair

Labor markets; school finance; computer-aided instruction

**Albert J. Sumell**, Ph.D., Professor

Urban, housing, and environmental economics

**Yogesh Uppal**, Ph.D., Professor

Applied microeconomics; applied econometrics; public economics; political economy; development economics

**Yaqin Wang**, Ph.D., Professor

Futures markets; behavioral economics

## Degree Requirements

Students must complete 30 semester hours of graduate credit with a grade point average of 3.0 or higher for the M.A. in economics. The requirements for the degree include the following required courses plus three electives that account for a total of nine semester hours. ECON 6904 may be waived by the Graduate Coordinator for students with strong quantitative training, those students would then take an additional 3 semester hour elective.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
ECON 6904	Quantitative Methods for Economics	3
ECON 6912	Microeconomic Theory	3
ECON 6922	Macroeconomic Theory	3
ECON 6939	The Economics of Financial Markets and Institutions	3
ECON 6945	Public Finance	3
ECON 6976	Econometrics	3
ECON 6998	Research Seminar	3
Select three electives		9
<b>Total Semester Hours</b>		<b>30</b>

Electives are 6900-level Economics courses, with the exception of ECON 6921 which will not count towards the degree. One elective may be either a 5800-level economics swing course or a graduate-level course taught outside the Department that has been approved by the graduate coordinator.

## Thesis Option

Students may write a thesis expanding on their project in the Research Seminar (ECON 6998) in place of one of the three hour electives. Students selecting the thesis option must earn a grade of B or A in the Research Seminar and submit a thesis proposal with the names of three faculty members who are willing to serve on a thesis committee to the department chair prior to registering for thesis credit hours (ECON 6999). The student must

defend the thesis in an oral examination before a committee of three or more faculty members of the department. The thesis must be submitted according to the general requirements of the College of Graduate Studies.

## Learning Outcomes

The learning outcomes for the MA in economics are as follows:

1. The students will demonstrate how to measure, detrend, and analyze macroeconomic variables such as GDP and inflation.
2. The students will evaluate monetary and fiscal policy using various versions of the IS-LM model.
3. The students will demonstrate the importance of expectations in current macroeconomic theory.
4. The students will compare the basic theories and models of Neoclassical and New-Keynesian Economics.
5. The student will solve for utility-maximizing and cost-minimizing outcomes using calculus.
6. The student will mathematically model the behavior of firms in competitive markets and firms who are monopolies.
7. The student will calculate the welfare losses due to a lack of competition.
8. The student will explain how public goods and externalities result in market failure.
9. The student will summarize how taxes result in efficiency losses and what factors determine the size of the efficiency loss.
10. The student will use an econometric approach to model economic phenomenon, estimate the resulting model, and interpret the estimated regression coefficients.
11. The student will demonstrate how to conduct a literature search of professional economic journals using EconLit.

## Graduate Courses

### **ECON 5801 Economics of Industrial Organization 3 s.h.**

A systematic analysis of the structure, conduct, and performance of American industry. A quantitative analysis plus a comprehensive review of theoretical models of the market, firm behavior, and performance.

**Prereq.:** ECON 2610.

### **ECON 5806 History of Economic Thought 3 s.h.**

Designed to provide students with an understanding of the development of economic ideas to include: Mercantilism, Physiocrats, the English Classical School, Utilitarianism, early Social Thought, Karl Marx, the German Historical School, Institutionalists and the Keynesian School.

**Prereq.:** ECON 2630.

### **ECON 5809 Current Problems in Money, Banking, and Financial Markets 3 s.h.**

The financial market system, including money and capital markets. Current problems associated with trends in theory and practice. Theories of the interest rate and monetarism.

**Prereq.:** ECON 3701 or consent of instructor.

### **ECON 5811 International Trade 3 s.h.**

Theories of international trade and specialization; free trade vs. protectionism; tariff and non-tariff barriers to international trade; international balance of payments and its components; the role of multinational enterprises in contemporary trade pattern; regional economic integrations and world trade; U.S. commercial policies.

**Prereq.:** ECON 2630.

### **ECON 5812 International Finance 3 s.h.**

Theories of foreign exchange and capital movements, international payments, analysis of spot and forward foreign exchange markets, foreign exchange market arbitrage, speculation, and risk hedging. The Bretton Woods agreement and the contemporary international monetary system. The rise of international organizations and multinational enterprises in the international economy.

**Prereq.:** ECON 2630.

### **ECON 5822 Urban and Regional Economics 3 s.h.**

Economic analysis of the problems of urbanized areas and the causes of the growth or decline in economic activity in small-area economics. Topics include benefit-cost analysis, economic base analysis, input-output applications, and the theory of location and agglomeration.

**Prereq.:** ECON 2610.

### **ECON 5824 Applied Time Series Analysis of Economic and Business Data 3 s.h.**

An in-depth analysis of time series models and their applications to problems in economics and business. Emphasis on forecasting. Extensive use of standard computer programs.

**Prereq.:** ECON 2610 and either ECON 3790 or STAT 4817.

### **ECON 5831 Labor Markets and the Economics of Unions 3 s.h.**

Economic theory and analysis of labor as an input in the resource market; principles, labor problems, public policy; theories of the development of the labor movement; economic objectives of trade unions; problems in public control.

**Prereq.:** ECON 2610.

### **ECON 5843 Economics of Poverty, Transfers and Discrimination 3 s.h.**

Examines the measurement and causes of poverty, trends in the distribution of income, and antipoverty programs and their effectiveness. Discussions of theories of discrimination, difficulties in measuring the impact of discrimination, and policies designed to reduce discrimination.

**Prereq.:** ECON 2610.

### **ECON 5853 Applied Econometrics 3 s.h.**

The practice of econometrics with emphasis on model construction, estimation, and interpretation of results. Applications in the private and public sectors involve the use of computers and economic software.

**Prereq.:** ECON 2630 and ECON 3790.

### **ECON 5856 Topics in Quantitative Economics 3 s.h.**

Application of different tools of mathematical economics, computational economics, and econometrics in conjunction with economic theory to model economic problems of firms, consumers, financial institutions, and public sectors. Specific content of the course will vary with the instructor. May be repeated once with a different topic.

**Prereq.:** ECON 3790.

### **ECON 6900 Statistical Problems 3 s.h.**

A survey of the fundamental statistical techniques used in business with special emphasis on interpreting the results generated by statistical software. Techniques covered: hypothesis tests of means and proportions, estimation, chi-square tests, analysis of variance, correlation, and regression. Not applicable toward the M.A. in economics.

### **ECON 6904 Quantitative Methods for Economics 3 s.h.**

A course designed to provide graduate students in economics with an opportunity to acquire the necessary skills in using the quantitative methods that are required to complete graduate-level economic theory and econometrics courses successfully. The course introduces the basic concepts and procedures of differential and integral calculus that are used in economic analysis, as well as the fundamental probability and statistics which are needed in the study of econometrics.

### **ECON 6912 Microeconomic Theory 3 s.h.**

Study of demand and supply, consumer theory, the theory of the firm, various market structures, and Pareto efficiency.

### **ECON 6915 Health Policy 3 s.h.**

A theoretical and empirical analysis of the health care sector. Topics include the demand for health care and health insurance, the perverse incentives of health insurance, moral hazard, physician and hospital behavior, and the role of competitive markets in the delivery of health care. Special emphasis is placed on the analysis of public policy, including financing and regulating the health care industry.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6921 Economic Analysis of Markets and Industries 2 s.h.**

Participants will learn to analyze and understand the impact economic factors (e.g., information, consumer behavior, supply and demand) have on shaping markets and industries. Using this knowledge, participants will be capable of assessing the different types of economic strategies (e.g., product differentiation, pricing, advertising and signaling) an organization can employ to gain market power to realize economic profits.

**Prereq.:** Graduate standing.

**ECON 6922 Macroeconomic Theory 3 s.h.**

Examines models used to determine the value of various aggregate economic variables, such as the price level, national income, employment, interest rates, and wage rates.

**ECON 6939 The Economics of Financial Markets and Institutions 3 s.h.**

Study of the institutions, instruments, and markets that facilitate the distribution of financial resources throughout the economy. The course discusses the money, capital, and commodity markets. Also, the topics of accessing default risk and hedging against market risk are discussed.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6940 Financial Economics 3 s.h.**

Study of various topics, including risk and the selection of the optimal monetary control tool, politics and monetary control, the financial firm as an optimizing institution, and portfolio theory.

**Prereq.:** ECON 6939 or permission of the instructor.

**ECON 6941 Monetary Economics 3 s.h.**

Study of the empirical analysis using multivariate time series methods, including the topics of distributed lag models, selection of the appropriate lag structures, causation versus correlation, and cointegration.

**Prereq.:** ECON 6922 or permission of the instructor.

**ECON 6945 Public Finance 3 s.h.**

Study of the role of the government in the economy. The topics covered will include expenditure analysis, theories of taxation, provision of public goods, fiscal federalism, and public choice theory.

**Prereq.:** ECON 6912.

**ECON 6946 State and Local Public Finance 3 s.h.**

Study of the special problems of financing subnational governments. Topics include the optimal level of local government spending, public choice through voting, public choice through migration, the combination of taxes used by state and local governments, the theory of tax incidence, the effect of intergovernmental grants, and expenditure patterns of local governments. Special attention will be given to local governmental grants and expenditure patterns of local governments, as well as local governments' role in financing education and transfer payments.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6952 Transfer Programs and Poverty 3 s.h.**

A study of poverty and the effectiveness of antipoverty programs. Topics include defining and measuring poverty, trends in the rate of poverty and the distribution of income, causes of poverty, models of discrimination, effectiveness of government training programs, transfer programs and their effect on labor supply, and the financial stability of the Social Security retirement program.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6955 Antitrust and Market Structure 3 s.h.**

Study of the pivotal court decisions that have determined the direction of antitrust law. Concentration is on the economic analysis of court decisions and the impact of the courts' decision on market structure. Topics covered include price fixing, mergers, monopolization, and exclusion practices.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6970 Economics Internship 3 s.h.**

The practical application of economic knowledge and statistical skills in the workplace. Students assist participating professionals in various kinds of industrial, financial, and public service organizations. By permit only.

**Prereq.:** ECON 6912 and ECON 6922.

**ECON 6976 Econometrics 3 s.h.**

Study of the fundamentals of econometric techniques that are useful for estimating causal economic relationships. The objectives include (1) analysis of the effects of exogenous factors on the variable whose behavior we seek to explain, (2) testing of hypotheses about new and existing economic theories, and (3) forecasting estimated economic relationships beyond the sample period for the purpose of planning and control. The course will focus on the practice of econometrics with extensive applications to a variety of real-world problems in many areas of economics.

**Prereq.:** ECON 6904.

**ECON 6981 International Finance 3 s.h.**

Study of the foreign exchange market; the business and economic consequences of changes in domestic and foreign banking; central banking; and financial market policies. The development of various exchange rate standards, foreign currency markets, and the Eurocurrency and Eurobond markets.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6985 International Trade and Development 3 s.h.**

Study of the determination of a country's exports and imports, the social welfare consequence of trade, free trade versus restricted trade, preferential trading agreements, and the current composition and direction of U.S. trade.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6988 Modeling in Financial Economics 3 s.h.**

A study of modeling and evaluation of derivatives and bonds and risk management using derivatives. Topics cover various models in asset evaluation, such as bond price models, the Black-Sholes model, diffusion processes, and risk management. Also listed as STAT 6988.

**Prereq.:** STAT 4843 or STAT 6943 or ECON 6976.

**ECON 6990 Special Topics in Economics 1-3 s.h.**

Special interest topics selected by the staff in the following areas: economic education, economic theory, and applied economics analysis. May be repeated for a maximum of six hours toward a graduate degree.

**ECON 6992 Data Analytics - Advanced SAS Programming 3 s.h.**

This course is designed to provide students training of advanced SAS programming for data analysis. Main topics include SQL, Macro language, Econometrics-related procedures, working with large data set, etc. Crosslisted with STAT 6912.

**Prereq.:** ECON 6976 or equivalent and either ECON 5861 or STAT 5811.

**ECON 6998 Research Seminar 3 s.h.**

Applied quantitative research techniques will be discussed. Students are required to undertake an original quantitative research project in a field of economics and write a paper summarizing their results. Course may be taken concurrently with ECON 6976. **Prereq.:** ECON 6912 and ECON 6922.

**ECON 6999 Master's Thesis 3 s.h.**

A research project under the supervision of a member of the department on the graduate faculty. The project typically extends the student's research in ECON 6998.

**Prereq.:** a grade of "A" or "B" in ECON 6998 and a thesis proposal accepted by departmental committee.

## Master of Arts in English

### Program Director

Dr. Lucas Hardy, Graduate Director  
240 DeBartolo Hall  
330-941-3420

lhardy01@ysu.edu

## Program Description

The Master of Arts program in English offers courses in:

- literature research,
- history and theory;
- genre and figure studies;
- creative and professional writing;
- linguistics and composition theory;
- film; and
- the teaching of writing and literature.

Faculty members strive to offer students an understanding of the traditions of literary study and familiarity with the latest multicultural and interdisciplinary approaches. The M.A. in English prepares graduates to pursue opportunities in teaching, professional writing, and further graduate study.

Working closely with their advisors, students design individual programs to meet their interests and goals. Students are encouraged to explore a variety of approaches to the study of literature, language, and writing and to develop their abilities as readers, critics, writers, and teachers. The program requires 30 semester hours of coursework in English, during which students complete and present a thesis or portfolio of their representative work to a faculty review committee.

## Graduate Certificates

Graduate certificates in professional and technical writing, teaching of writing, literature for children and young adults, and teaching English to speakers of other languages (TESOL) are available through the English Department. Please see the appropriate information in the Graduate Certificates section of this catalog.

## Advising

All students should have their schedules approved by a graduate faculty advisor every semester. After initial enrollment in the program, the student and his or her advisor will establish a coursework plan including alternate course selections.

Students who anticipate graduate study beyond the M.A. are strongly advised to acquire basic reading competence in at least one foreign language.

## Admission Requirements

Students must have an undergraduate English major or other preparation judged satisfactory by the department and an grade point average in undergraduate study of at least 3.0 (on a 4.0 scale). Applicants for the M.A. are required to submit a brief (750-1000 words) statement of purpose outlining their reasons for wishing to obtain the M.A. in English and how that degree fits into their professional goals. Applicants are also required to submit a short sample of academic prose, preferably an undergraduate class paper.

## Graduate Faculty

**Corey E. Andrews**, Ph.D., Professor

Eighteenth-century literature; Scottish Studies; Robert Burns; poetry; bibliography; working-class studies

**Diana Awad-Scrocco**, Ph.D., Assistant Professor

Professional and technical writing; medical rhetoric and communication; composition pedagogy; writing center theory and practice

**Rebecca A. Barnhouse**, Ph.D., Professor

**Christopher Barzak**, M.F.A., Professor

Fiction writing; fiction; contemporary British and American literature

**Laura L. Beadling**, Ph.D., Associate Professor

Gender, race and sexuality in American film; Native American film and culture; comics studies; television studies; rhetoric and composition

**Terry Benton**, Ph.D., Assistant Professor

Children's literature

**Philip Sean Brady**, Ph.D., Professor

Modern Irish literature; creative writing; modern world literature

**Jeffrey M. Buchanan**, Ph.D., Chair, Professor

English education; composition; pedagogy

**Suzanne Diamond**, Ph.D., Professor

Cinematic literary adaptations; 19th century British literature and culture; "true crime" media; writing pedagogy

**Timothy Francisco**, Ph.D., Professor

Shakespeare and early modern studies; working-class and inequity studies; humanities education and public policy; media and narrative studies

**Julia M. Gergits**, Ph.D., Professor

Victorian literature; women's studies; technical writing; literature and the Other

**Jay L. Gordon**, Ph.D., Associate Professor

Rhetoric; technical and professional communication; document design; pedagogy of writing

**Steven Reese**, Ph.D., Professor

Twentieth-century British literature; creative writing

**Dolores V. Sisco**, Ph.D., Assistant Professor

African diaspora studies; postcolonial studies; popular culture

**Linda J. Strom**, Ph.D., Associate Professor

## Degree Requirements

All master's degree students must complete 30 semester hours in English courses at the graduate level; exceptions must have prior approval of the English Department chair and the Director of Graduate Studies. All M.A. students must take at least one course in each of two areas:

- one theory or methods course (graduate assistants must take ENGL 6907 Teaching of Writing; ENGL 6989 Teaching Practicum may not fulfill this requirement);
- one language, discourse, or writing course.

Students may select the literature-based M.A. or the M.A. track in Professional Writing and Editing to complete their degree.

## M.A. in English

To complete this option, students must complete 30 semester hours in English courses at the graduate level; exceptions must have prior approval of the Department Chair and the Director of Graduate Studies. In addition to theory, language, discourse, or writing courses required above, students selecting this option must take at least two literature courses from a list of approved courses, as well as one of these courses:

- ENGL 6900 Methods of Literary Research, or
- ENGL 6901 Methods of Composition Research.

To complete their degree requirements, students in this option may either submit a thesis or a graduate portfolio.

Students in this option are encouraged, but not required, to create a focus area with their remaining courses. Possible focus areas include:

- literature,
- linguistics,

- professional writing and editing,
- composition and rhetoric,
- teaching English to speakers of other languages (TESOL), and
- literature for children and young adults.

Students who plan on pursuing a Ph.D. in literary studies are strongly encouraged to complete a broad selection of courses in British and American literature.

## M.A. in English, Professional and Technical Writing Track

To complete this option, students must complete 30 semester hours of credit in the following courses. Two of these courses must also satisfy the theory, language, discourse, or writing courses required above.

COURSE	TITLE	S.H.
<b>Required Core Courses</b>		
ENGL 6943	Technical Communication	3
ENGL 6944	Document Design and Production	3
ENGL 6945	Theory of Professional and Technical Communication	3
ENGL 6992	Professional Communication (special topics)	3
ENGL 6953	Publications Issues and Management	3
ENGL 6949	Professional and Technical Editing	3
Select three of the following:		
ENGL 6901	Methods of Composition Research	
ENGL 6907	Teaching of Writing	
ENGL 6950	Sociolinguistics	
ENGL 6955	Advanced Linguistics	
ENGL 6958	English Grammar	
ENGL 6993	Discourse Theory	
ENGL 6998	Professional Writing Internship	3
or ENGL 6999	Thesis	
<b>Total Semester Hours</b>		<b>30</b>

## Thesis and Portfolio Options

All M.A. students must submit a thesis or portfolio. Handouts on thesis and portfolio guidelines and examples of past theses and portfolios are available from the departmental Director of Graduate Studies.

The thesis option is designed especially for, but is not limited to, students planning to pursue a doctorate. Students choosing this option must select a committee consisting of a thesis director and two additional graduate faculty members. This committee must approve a thesis proposal before the student can register for thesis credit. Students must demonstrate through the thesis a familiarity with appropriate sources and an ability to interpret the material and properly document their research. Students selecting the thesis option may count up to three semester hours of thesis credit (ENGL 6999 Thesis) toward their total of 30 semester hours of coursework.

The portfolio consists of selected work written during graduate coursework or as part of a professional internship. The student will present the portfolio to a faculty review committee no later than the eighth week of the semester in which s/he plans to graduate. Students in the Professional Writing and Editing track may count up to three semester hours of credit earned in their professional internship toward the 30 semester hour requirement.

## Learning Outcomes

English graduate students will demonstrate the ability to produce professional-quality research papers that could be used as the basis for conference presentations or professional publications.

English graduate students will demonstrate the use of a variety of interpretive strategies for analyzing multiple kinds of texts, including close reading, contextual analysis, analysis of form and genre, and rhetorical analysis.

English graduate students will demonstrate the use of theories related to the representation of culture, race, class, gender, and sexuality to interpret literary texts.

English graduate students will demonstrate the ability to participate in the professional life of the field as scholars, teachers, editors, and/or writers.

## Graduate Courses

### ENGL 6900 Methods of Literary Research 3 s.h.

Basic concepts and methods of literary research and analysis.

### ENGL 6901 Methods of Composition Research 3 s.h.

Theories and methods of composition research; emphasis on strategies for conducting, analyzing, and writing about classroom and workplace studies.

### ENGL 6902 Literary Thought 3 s.h.

May focus on particular theoretical approaches or provide an overview of literary criticism. May be repeated once with a different topic.

### ENGL 6906 Teaching of Literature 3 s.h.

Problems, issues, practices, and research that affect the teaching of literature at various grade levels and in college courses.

### ENGL 6907 Teaching of Writing 3 s.h.

Problems, issues, practices, and research that affect the teaching of writing at various grade levels and in college courses.

### ENGL 6911 The Medieval World 3 s.h.

Study of selected literary works reflecting medieval thought and culture. May be repeated once with a different topic.

### ENGL 6912 Sixteenth- and 17th-Century British Studies 3 s.h.

Nondramatic literature of the British Renaissance. May be repeated once with a different topic.

### ENGL 6913 Shakespeare and Renaissance Drama 3 s.h.

Varying emphases on the dramatic works of Shakespeare and/or his contemporaries. May be repeated once with a different topic.

### ENGL 6914 Restoration and 18th-Century British Studies 3 s.h.

Prose, poetry, and/or drama of the period studied in historical and cultural context and from various critical perspectives. May be repeated once with a different topic.

### ENGL 6915 Early American Studies 3 s.h.

Prose, poetry, and/or drama from the colonial period up to the early 19th century examined in their historical and cultural contexts. May be repeated once with a different topic.

### ENGL 6916 Nineteenth-Century British Studies 3 s.h.

Prose, poetry, and/or drama of the period studied in historical and cultural context and from various critical perspectives. May be repeated once with a different topic.

### ENGL 6917 Nineteenth-Century American Studies 3 s.h.

Examines 19th-century American literature and culture through particular themes, genres, styles, periods, and/or figures. May be repeated once with a different topic.

### ENGL 6918 Studies in Children's Literature 3 s.h.

Contemporary children's literature. Emphasis may be on development, trends, critical standards, cultural context, classroom selection and use. May be repeated once with a different topic.

### ENGL 6919 Studies in Young Adult Literature 3 s.h.

Contemporary young adult literature. Emphasis may be on development, trends, critical standards, cultural context, classroom selection and use. May be repeated once with a different topic.

**ENGL 6920 Twentieth-Century British Studies 3 s.h.**

Prose, poetry, and/or drama of the period studied in historical and cultural context and from various critical perspectives. May be repeated once with a different topic.

**ENGL 6922 Twentieth-Century American 3 s.h.**

Studies. Examines works in relation to the history and social and cultural developments of the period. Nonliterary texts may be included, such as film, visual arts, and music. May be repeated once with a different topic.

**ENGL 6923 Working Class Literature 3 s.h.**

A study of working-class literature, culture, and artistic production, with emphasis on the literary history, the material conditions, and the intersection of race, ethnicity, gender, and sexual orientation in the works of literature by and about the working class.

**ENGL 6927 Historical Survey of Literature for Young People 3 s.h.**

Survey of historical developments from the 18th through mid-20th centuries in British and American literature for young people.

**ENGL 6935 Studies in Romanticism 3 s.h.**

Prose, poetry, and/or drama of the period studied in historical and cultural context and from various critical perspectives. May be repeated once with a different topic.

**ENGL 6943 Technical Communication 3 s.h.**

In-depth discussion of audience, format, document design, and corporate structure. Focus on refining skills and providing theoretical support for practical applications.

**Prereq.:** ENGL 3743 Professional and Technical Communication and ENGL 4849 Professional and Technical Editing or ENGL 6949.

**ENGL 6944 Document Design and Production 3 s.h.**

Application of computer software and hardware to design and produce professional/technical documents.

**ENGL 6945 Theory of Professional and Technical Communication 3 s.h.**

Examines theory and research in professional and technical communication with emphasis on the application of theoretical concepts and empirical findings to practical problems in the field. Introduces students to theories and research methods through reading in current literature and through class research projects.

**ENGL 6946 Historical Editing 3 s.h.**

Project-based approach to theoretical and practical aspects of editing historical and literary documents for both print and digital contexts. Topics include document selection, transcription, verification, and annotation, as well as the implications for teaching and learning using traditional print and electronic archives and texts.

**Cross-listed:** HIST 6946.

**ENGL 6949 Professional and Technical Editing 3 s.h.**

A study of the skills needed to make appropriate changes in the content, grammar, mechanics, style, format, and organization of manuscripts for scholarly, trade, journalistic, and other professional publications. The course deals with stages in the publishing process, hard-copy versus online editing, mechanical and substantive editing, and the use of house and press styles.

**ENGL 6950 Sociolinguistics 3 s.h.**

An investigation of the relationship between language and society. Includes discussion of dialects and standard languages, language planning, linguistic identity, multi- and bilingualism, class, gender, ethnicity, and social interaction.

**ENGL 6951 Language Acquisition 3 s.h.**

A study of research on the learning of first and second languages. Topics include developmental sequences, learner variables, critical periods and conditions for learning, and the roles of input and interaction. The course is designed for those planning to teach languages.

**ENGL 6952 Linguistics of Literacy 3 s.h.**

An investigation of the linguistic, social, and cultural dimensions of literacy. The course covers theoretical frameworks of language and literacy, the relationship between speech and writing, cultural notions of literacy, and the acquisition of literacy in first and additional languages.

**ENGL 6953 Publications Issues and Management 3 s.h.**

Exploration of the issues involved in managing and producing professional publications, including publications in students' own fields. Focus on organizational, editorial, and authorial voice; editorial policies; audience analysis; and the processes by which publications are conceived, designed, and produced.

**ENGL 6955 Advanced Linguistics 3 s.h.**

In-depth study of selected issues in contemporary linguistic theory.

**ENGL 6956 TESOL Methods 3 s.h.**

Introduction to teaching English as a second language (ESL), including reading, writing, listening, and speaking. Focus will be on using communicative methods with nonnative speakers.

**ENGL 6957 TESOL Practicum 3 s.h.**

Supervised teaching in an English as a second language (ESL) program. Additionally, weekly seminar attendance is required.

**ENGL 6958 English Grammar 3 s.h.**

Descriptions and analysis of English grammar structure.

**ENGL 6960 Studies in Linguistics 3 s.h.**

Examines a specific topic such as stylistics, semantics, sociolinguistics, second language acquisition, TESOL, or computational linguistics. May be repeated twice with a different topic.

**ENGL 6963 Perspectives in Multicultural Studies 3 s.h.**

An advanced study of primary and secondary texts from the field of multicultural literature and multicultural education. The course will emphasize the formation of social identities, the intersections of race, class, and gender, relationships among dominant and nondominant subjects in U.S. and other global cultures. The course will pay special attention to the theory and application of multiculturalist paradigms to education, professional work, and graduate study. May be repeated once with a different topic.

**ENGL 6965 Studies in Film 3 s.h.**

Analysis of motion pictures and their creators; topics may include classic and contemporary styles, genres, and methods of production, as well as film theory and criticism. May be repeated once with a different topic.

**ENGL 6966 Writing of Poetry 3 s.h.**

Discussion and application of approaches, techniques, and forms involved in the writing of poetry. May be repeated once with a different topic.

**ENGL 6967 Writing of Prose 3 s.h.**

Discussion and application of approaches, techniques, and forms involved in the writing of fiction and/or nonfiction. May be repeated once with a different topic.

**ENGL 6968 Studies in Literary Form 3 s.h.**

Examines forms such as poetry, the novel, the short story, essay, biography, autobiography, or travel literature. Emphasis may be on definition, development, cultural context, figures, or themes. May be repeated once with a different topic.

**ENGL 6969 Writing the Youth Novel 3 s.h.**

Discussion and application of approaches, techniques, and forms involved in the writing of novels.

**ENGL 6974 English Education Workshop 1-3 s.h.**

Intensive study and activity in a topic related to teaching English and the language arts. Does not count toward degree credit. Grading is S/U. May be repeated.

**ENGL 6975 English Education Seminar 1-3 s.h.**

Approaches to teaching English and the language arts. May be repeated once with a different topic.

**ENGL 6976 Studies in English Education 3 s.h.**

Theories, issues, and/or criticism in the teaching of English. May be repeated once with a different topic.

**ENGL 6989 Teaching Practicum 1-3 s.h.**

Techniques and strategies for teaching college composition, including course design and classroom practice. Required of and limited to graduate assistants who are teaching in the English Department. First-year graduate assistants must register for three semester hours of Teaching Practicum in two successive semesters for a total of six semester hours. Does not count toward degree credit. Grading is S/U.

**ENGL 6990 Special Topics 3 s.h.**

May be repeated once.

**ENGL 6991 Special Topics MFA 3 s.h.**

Special topics in literature and creative writing for students in the Master of Fine Arts (MFA) program in creative writing. May be repeated once.

**Prereq.:** Acceptance in the MFA program.

**ENGL 6992 Professional Communication 3 s.h.**

Focus on a selected topic in technical writing or professional communication (e.g., proposal writing, science writing, computer documentation, nonfiction prose). May be repeated once with a different topic.

**ENGL 6993 Discourse Theory 3 s.h.**

Examination and discussion of contemporary theories of discourse analysis, with some attention to the history and development of rhetorical theory.

**ENGL 6997 English Internship 1-3 s.h.**

Supervised work-and-learning experience in English under the direction of an English Department faculty member and an employee of a participating firm. Ten to 20 hours a week of student time are expected. Enrollment is contingent upon the availability of internships. Students are selected on the basis of personal qualifications, including GPA, courses taken, recommendations, and an interview. Either ENGL 6997 or ENGL 6998 may count toward the degree, not both.

**ENGL 6998 Professional Writing Internship 1-3 s.h.**

Supervised work-and-learning experience in professional communication under the direction of a University faculty member and an employee of a participating firm. Ten to 20 hours a week of student time are expected. Enrollment is contingent upon the availability of internships. Students are selected on the basis of personal qualifications, including GPA, courses taken, recommendations, and an interview. Either ENGL 6997 or ENGL 6998 may count toward the degree-not both.

**ENGL 6999 Thesis 1-3 s.h.**

Thesis.

**Prereq.:** Thesis proposal accepted by departmental committee.

## Master of Arts in Financial Economics

### Program Director

Dr. Ebenge Usip  
307 DeBartolo Hall  
(330) 941-1682  
eeusip@ysu.edu

### Program Description

The Master of Arts in financial economics program is designed to provide students with a background in economic theory and to teach students how to analyze financial markets. This program is intended to lead to professional employment in the financial services industry, including banking, insurance, and financial advising. Coursework in the program includes:

- coverage of micro- and macroeconomic theory,
- econometrics,
- financial markets,
- management of financial capital, and
- analysis of the valuation of stocks.

Electives allow students an opportunity to pursue additional topics such as international finance. Supplemented by upper-level courses in mathematics,

the program can also help prepare students for doctoral study in finance, economics, or related fields.

## Combined Bachelors/Masters Program

Highly qualified undergraduate students can apply for admission into the combined "4+1" Bachelors/Masters program for the MA in Economics. See the description of the "4+1" program (p. 289) in the undergraduate catalog.

## Admission Requirements

In addition to the College of Graduate Studies admission requirements, applicants must have completed at least one course in each of the following areas:

- principles of microeconomics,
- principles of macroeconomics,
- statistics, and
- calculus.

Students who do not meet the requirements may be admitted on a provisional basis. Students with provisional admission are required to take undergraduate coursework to fulfill the admission requirements. With the permission of the Graduate Coordinator they may also be allowed to simultaneously take a limited number of masters-level courses.

## Graduate Faculty

**Huaiyu (Peter) Chen**, Ph.D., Associate Professor  
Equity market; abnormal return

**Ou Hu**, Ph.D., Professor  
Financial markets; international finance; asset pricing

**Tomi P. Ovaska**, Ph.D., Professor  
Public finance; comparative economic systems; entrepreneurship; international trade; behavioral economics

**Joseph Palardy**, Ph.D., Professor  
Macroeconomics; time series econometrics

**Tod Porter**, Ph.D., Professor, Chair  
Labor markets; school finance; computer-aided instruction

**Albert J. Sumell**, Ph.D., Professor  
Urban, housing, and environmental economics

**Yogesh Uppal**, Ph.D., Professor  
Applied microeconomics; applied econometrics; public economics; political economy; development economics

**Yaqin Wang**, Ph.D., Professor  
Futures markets; behavioral economics

**Fran Marie Wolf**, Ph.D., Professor  
Financial management; advanced financial analysis

## Degree Requirements

Students must complete 30 semester hours of graduate credit with a grade point average of 3.0 or higher for the M.A. in financial economics. The requirements for the degree include the following required courses plus two electives that account for a total of six semester hours. Students who need to reinforce their quantitative skills will be asked to take ECON 6904, which does not count towards the 30 semester hours.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
ECON 6912	Microeconomic Theory	3
ECON 6922	Macroeconomic Theory	3



ECON 6939	The Economics of Financial Markets and Institutions	3
ECON 6976	Econometrics	3
ECON 6998	Research Seminar	3
FIN 6902	Financial Accounting and Finance for Decision Making	1
FIN 6923	Corporate Financial Management	2
FIN 6924	Securities Analysis	3
FIN 6939	Multinational Accounting and Finance	3
or FIN 6953	Advanced Financial Analysis	
<b>Electives</b>		
Select two 3 sh electives		6
<b>Total Semester Hours</b>		<b>30</b>

6900-level graduate courses in Economics or Finance can be used as electives (the one exception is ECON 6921, which does not count towards the degree). One elective may be either a 5800-level economics swing course or a graduate-level course outside of finance or economics that has been approved by the graduate coordinator.

## Thesis Option

Students may write a thesis expanding on their project in the Research Seminar (ECON 6998) in place of one of the three hour electives. Students selecting the thesis option must earn a grade of B or A in the Research Seminar and submit a thesis proposal with the names of three faculty members who are willing to serve on a thesis committee to the department chair prior to registering for thesis credit hours (ECON 6999). The student must defend the thesis in an oral examination before a committee of three or more faculty members of the department. The thesis must be submitted according to the general requirements of the College of Graduate Studies.

## Learning Outcomes

1. The students will demonstrate how to measure, detrend, and analyze macroeconomic variables such as GDP and inflation.
2. The students will evaluate monetary and fiscal policy using various versions of the IS-LM model.
3. The students will demonstrate the importance of expectations in current macroeconomic theory.
4. The students will compare the basic theories and models of Neoclassical and New-Keynesian Economics.
5. The student will solve for utility-maximizing and cost-minimizing outcomes using calculus.
6. The student will mathematically model the behavior of firms in competitive markets and firms who are monopolies.
7. The student will calculate the welfare losses due to a lack of competition.
8. The student will use an econometric approach to model economic phenomenon, estimate the resulting model, and interpret the estimated regression coefficients.
9. The student will demonstrate how to conduct a literature search of professional economic journals using EconLit.
10. The student will demonstrate knowledge of the various financial markets, instruments, agents, functions, and intermediaries.
11. The student will demonstrate knowledge of hedging versus speculating, primary and secondary markets for mortgage loans, and markets for future and options contracts.
12. The student will demonstrate knowledge of the market interest rates swaps, and how to use financial instruments to hedge against interest risk.
13. The student will demonstrate how to use financial models to aid managers in making value maximizing choices.
14. The student will demonstrate an understanding of the allocative role and function of financial markets, securities, and corporate financial decisions in a market economy.

15. The student will demonstrate the importance of finance as a vital function within an organization that necessitates diligence and high ethical standards in application
16. The student will demonstrate knowledge of the link between theoretically sound financial techniques and value judgment.

## Graduate Courses

### **ECON 5801 Economics of Industrial Organization 3 s.h.**

A systematic analysis of the structure, conduct, and performance of American industry. A quantitative analysis plus a comprehensive review of theoretical models of the market, firm behavior, and performance.

**Prereq.:** ECON 2610.

### **ECON 5806 History of Economic Thought 3 s.h.**

Designed to provide students with an understanding of the development of economic ideas to include: Mercantilism, Physiocrats, the English Classical School, Utilitarianism, early Social Thought, Karl Marx, the German Historical School, Institutionalists and the Keynesian School.

**Prereq.:** ECON 2630.

### **ECON 5809 Current Problems in Money, Banking, and Financial Markets 3 s.h.**

The financial market system, including money and capital markets. Current problems associated with trends in theory and practice. Theories of the interest rate and monetarism.

**Prereq.:** ECON 3701 or consent of instructor.

### **ECON 5811 International Trade 3 s.h.**

Theories of international trade and specialization; free trade vs. protectionism; tariff and non-tariff barriers to international trade; international balance of payments and its components; the role of multinational enterprises in contemporary trade pattern; regional economic integrations and world trade; U.S. commercial policies.

**Prereq.:** ECON 2630.

### **ECON 5812 International Finance 3 s.h.**

Theories of foreign exchange and capital movements, international payments, analysis of spot and forward foreign exchange markets, foreign exchange market arbitrage, speculation, and risk hedging. The Bretton Woods agreement and the contemporary international monetary system. The rise of international organizations and multinational enterprises in the international economy.

**Prereq.:** ECON 2630.

### **ECON 5822 Urban and Regional Economics 3 s.h.**

Economic analysis of the problems of urbanized areas and the causes of the growth or decline in economic activity in small-area economics. Topics include benefit-cost analysis, economic base analysis, input-output applications, and the theory of location and agglomeration.

**Prereq.:** ECON 2610.

### **ECON 5824 Applied Time Series Analysis of Economic and Business Data 3 s.h.**

An in-depth analysis of time series models and their applications to problems in economics and business. Emphasis on forecasting. Extensive use of standard computer programs.

**Prereq.:** ECON 2610 and either ECON 3790 or STAT 4817.

### **ECON 5831 Labor Markets and the Economics of Unions 3 s.h.**

Economic theory and analysis of labor as an input in the resource market; principles, labor problems, public policy; theories of the development of the labor movement; economic objectives of trade unions; problems in public control.

**Prereq.:** ECON 2610.

### **ECON 5843 Economics of Poverty, Transfers and Discrimination 3 s.h.**

Examines the measurement and causes of poverty, trends in the distribution of income, and antipoverty programs and their effectiveness. Discussions of theories of discrimination, difficulties in measuring the impact of discrimination, and policies designed to reduce discrimination.

**Prereq.:** ECON 2610.

**ECON 5853 Applied Econometrics 3 s.h.**

The practice of econometrics with emphasis on model construction, estimation, and interpretation of results. Applications in the private and public sectors involve the use of computers and economic software.

**Prereq.:** ECON 2630 and ECON 3790.

**ECON 5856 Topics in Quantitative Economics 3 s.h.**

Application of different tools of mathematical economics, computational economics, and econometrics in conjunction with economic theory to model economic problems of firms, consumers, financial institutions, and public sectors. Specific content of the course will vary with the instructor. May be repeated once with a different topic.

**Prereq.:** ECON 3790.

**ECON 6900 Statistical Problems 3 s.h.**

A survey of the fundamental statistical techniques used in business with special emphasis on interpreting the results generated by statistical software. Techniques covered: hypothesis tests of means and proportions, estimation, chi-square tests, analysis of variance, correlation, and regression. Not applicable toward the M.A. in economics.

**ECON 6904 Quantitative Methods for Economics 3 s.h.**

A course designed to provide graduate students in economics with an opportunity to acquire the necessary skills in using the quantitative methods that are required to complete graduate-level economic theory and econometrics courses successfully. The course introduces the basic concepts and procedures of differential and integral calculus that are used in economic analysis, as well as the fundamental probability and statistics which are needed in the study of econometrics.

**ECON 6912 Microeconomic Theory 3 s.h.**

Study of demand and supply, consumer theory, the theory of the firm, various market structures, and Pareto efficiency.

**ECON 6915 Health Policy 3 s.h.**

A theoretical and empirical analysis of the health care sector. Topics include the demand for health care and health insurance, the perverse incentives of health insurance, moral hazard, physician and hospital behavior, and the role of competitive markets in the delivery of health care. Special emphasis is placed on the analysis of public policy, including financing and regulating the health care industry.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6921 Economic Analysis of Markets and Industries 2 s.h.**

Participants will learn to analyze and understand the impact economic factors (e.g., information, consumer behavior, supply and demand) have on shaping markets and industries. Using this knowledge, participants will be capable of assessing the different types of economic strategies (e.g., product differentiation, pricing, advertising and signaling) an organization can employ to gain market power to realize economic profits.

**Prereq.:** Graduate standing.

**ECON 6922 Macroeconomic Theory 3 s.h.**

Examines models used to determine the value of various aggregate economic variables, such as the price level, national income, employment, interest rates, and wage rates.

**ECON 6939 The Economics of Financial Markets and Institutions 3 s.h.**

Study of the institutions, instruments, and markets that facilitate the distribution of financial resources throughout the economy. The course discusses the money, capital, and commodity markets. Also, the topics of accessing default risk and hedging against market risk are discussed.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6940 Financial Economics 3 s.h.**

Study of various topics, including risk and the selection of the optimal monetary control tool, politics and monetary control, the financial firm as an optimizing institution, and portfolio theory.

**Prereq.:** ECON 6939 or permission of the instructor.

**ECON 6941 Monetary Economics 3 s.h.**

Study of the empirical analysis using multivariate time series methods, including the topics of distributed lag models, selection of the appropriate lag structures, causation versus correlation, and cointegration.

**Prereq.:** ECON 6922 or permission of the instructor.

**ECON 6945 Public Finance 3 s.h.**

Study of the role of the government in the economy. The topics covered will include expenditure analysis, theories of taxation, provision of public goods, fiscal federalism, and public choice theory.

**Prereq.:** ECON 6912.

**ECON 6946 State and Local Public Finance 3 s.h.**

Study of the special problems of financing subnational governments. Topics include the optimal level of local government spending, public choice through voting, public choice through migration, the combination of taxes used by state and local governments, the theory of tax incidence, the effect of intergovernmental grants, and expenditure patterns of local governments. Special attention will be given to local governmental grants and expenditure patterns of local governments, as well as local governments' role in financing education and transfer payments.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6952 Transfer Programs and Poverty 3 s.h.**

A study of poverty and the effectiveness of antipoverty programs. Topics include defining and measuring poverty, trends in the rate of poverty and the distribution of income, causes of poverty, models of discrimination, effectiveness of government training programs, transfer programs and their effect on labor supply, and the financial stability of the Social Security retirement program.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6955 Antitrust and Market Structure 3 s.h.**

Study of the pivotal court decisions that have determined the direction of antitrust law. Concentration is on the economic analysis of court decisions and the impact of the courts' decision on market structure. Topics covered include price fixing, mergers, monopolization, and exclusion practices.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6970 Economics Internship 3 s.h.**

The practical application of economic knowledge and statistical skills in the workplace. Students assist participating professionals in various kinds of industrial, financial, and public service organizations. By permit only.

**Prereq.:** ECON 6912 and ECON 6922.

**ECON 6976 Econometrics 3 s.h.**

Study of the fundamentals of econometric techniques that are useful for estimating causal economic relationships. The objectives include (1) analysis of the effects of exogenous factors on the variable whose behavior we seek to explain, (2) testing of hypotheses about new and existing economic theories, and (3) forecasting estimated economic relationships beyond the sample period for the purpose of planning and control. The course will focus on the practice of econometrics with extensive applications to a variety of real-world problems in many areas of economics.

**Prereq.:** ECON 6904.

**ECON 6981 International Finance 3 s.h.**

Study of the foreign exchange market; the business and economic consequences of changes in domestic and foreign banking; central banking; and financial market policies. The development of various exchange rate standards, foreign currency markets, and the Eurocurrency and Eurobond markets.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6985 International Trade and Development 3 s.h.**

Study of the determination of a country's exports and imports, the social welfare consequence of trade, free trade versus restricted trade, preferential trading agreements, and the current composition and direction of U.S. trade.  
**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6988 Modeling in Financial Economics 3 s.h.**

A study of modeling and evaluation of derivatives and bonds and risk management using derivatives. Topics cover various models in asset evaluation, such as bond price models, the Black-Sholes model, diffusion processes, and risk management. Also listed as STAT 6988.  
**Prereq.:** STAT 4843 or STAT 6943 or ECON 6976.

**ECON 6990 Special Topics in Economics 1-3 s.h.**

Special interest topics selected by the staff in the following areas: economic education, economic theory, and applied economics analysis. May be repeated for a maximum of six hours toward a graduate degree.

**ECON 6992 Data Analytics - Advanced SAS Programming 3 s.h.**

This course is designed to provide students training of advanced SAS programming for data analysis. Main topics include SQL, Macro language, Econometrics-related procedures, working with large data set, etc. Crosslisted with STAT 6912.  
**Prereq.:** ECON 6976 or equivalent and either ECON 5861 or STAT 5811.

**ECON 6998 Research Seminar 3 s.h.**

Applied quantitative research techniques will be discussed. Students are required to undertake an original quantitative research project in a field of economics and write a paper summarizing their results. Course may be taken concurrently with ECON 6976. **Prereq.:** ECON 6912 and ECON 6922.

**ECON 6999 Master's Thesis 3 s.h.**

A research project under the supervision of a member of the department on the graduate faculty. The project typically extends the student's research in ECON 6998.  
**Prereq.:** a grade of "A" or "B" in ECON 6998 and a thesis proposal accepted by departmental committee.

**FIN 6900 Financial Accounting and Finance for Decision Making 4 s.h.**

A survey of the fundamental concepts of financial accounting employed by general managers. Additionally, a survey of the concepts, principles, and practices of financial management used by general managers and the links between the two types of information. Permit required.

**FIN 6902 Financial Accounting and Finance for Decision Making 1 s.h.**

Participants be able to utilize foundational concepts of accounting and finance so they are able to use financial statements to determine the condition of a business. Further, participants will learn how to utilize key financial ratios, which capture key elements of a firm's performance, to be better positioned to make more informed decisions.  
**Prereq.:** Graduate standing.

**FIN 6910 Business Internship 1-3 s.h.**

Provides graduate students the opportunity to relate theory to practice through on-the-job work experience with a participating organization. The internship will serve as an elective MBA course.  
**Prereq.:** Completion of level I MBA coursework and six semester hours of level II MBA coursework.

**FIN 6923 Corporate Financial Management 2 s.h.**

Participants will develop a working knowledge of corporate financial issues and apply analytical tools to make better corporate financial decisions. Participants will be capable of making decisions relating to capital budgeting, capital structure, dividend policy, acquisitions and buyouts in order to maximize firm, shareholder and investor value.  
**Prereq.:** FIN 6902.

**FIN 6924 Securities Analysis 3 s.h.**

The major emphasis will be an in-depth, fundamental analysis of the investment merits of the common stock of a firm. This study will be accomplished by applying the appropriate analytical principles and valuation techniques to the firm's financial statements. A research paper will be required.  
**Prereq.:** FIN 6923.

**FIN 6939 Multinational Accounting and Finance 3 s.h.**

A cross-functional examination of selected topics in international accounting and finance with emphasis on developing research and problem-solving skills. Cases will be presented that teach the strategy and tactics of multinational corporate reporting and financial management.  
**Prereq.:** FIN 6923.

**FIN 6945 Business Valuation 3 s.h.**

A study of business valuation techniques currently used in valuing publicly traded and private equity.  
**Prereq.:** "C" or better in FIN 3720 or FIN 6900.

**FIN 6953 Advanced Financial Analysis 3 s.h.**

Applications of financial analysis to business consulting. Includes case studies and practical implementation strategies.  
**Prereq.:** FIN 6923.

**FIN 6968 Special Topics in Finance 1-3 s.h.**

Topics may vary from semester to semester and will be announced with prerequisites and hours. May be repeated.

**FIN 6970 Seminar in Finance 3 s.h.**

Specific topics selected by the staff from timely and controversial work published in the field.  
**Prereq.:** All core courses, plus at least six hours (6900-level) in the finance concentration, or permission of instructor.

**FIN 6996 Research Problems 1-4 s.h.**

Special research project under the supervision of a graduate faculty member. Credit will be determined in each case in light of the nature and extent of the project.  
**Prereq.:** Fifteen hours of level II MBA coursework or permission of MBA director.

## Master of Arts in Gerontology

### Program Director

Daniel J. Van Dussen, Ph.D.  
 440 DeBartolo Hall  
 (330) 941-1683  
 djvandussen@ysu.edu

### Program Description

The curriculum is designed from an interdisciplinary perspective of gerontology with a focus on epidemiology and health. This program will provide students with advanced education in issues facing older adults, for the purpose of preparing them for advancement in the field of gerontology. The program allows for a Thesis or a Non-Thesis track based upon the students' desires and goals. The program consists of 42 semester hours, which may be completed in four semesters of full-time coursework or six semesters part time.

### Admission Requirements

In addition to the minimum criteria set by the College of Graduate Studies, applicants must meet the following requirements for full admission:

1. A cumulative Grade Point Average of at least 3.0 (on a 4.0 scale).
2. Three (3) letters of recommendation from individuals familiar with the students' academic or professional background.
3. A letter of intent stating their objectives for seeking a Master's Degree in Gerontology and how this program will help them fulfill their goals.

4. A personal interview is optional.
5. A Resume or Curriculum Vitae.
6. A social statistics course at the undergraduate or graduate level.

## Graduate Faculty

**Daniel J. Van Dussen**, Ph.D., Associate Professor  
Social and psychological determinants of health among older adults; the family; social support; statistics and methods

**Amy Weaver**, Ph.D., Associate Professor  
Geriatric education; geriatrics; simulation

## Degree Requirements

The Master of Arts in Gerontology will consist of 12 courses (36 credit hours) which can be completed over a 2 academic year period.

### Thesis Option

COURSE	TITLE	S.H.
<b>Core Courses</b>		
SOC 6905	Social Gerontology	3
GERO 6915	Service Delivery Aging Policy	3
PSYC 6957	Advanced Adult Development and Aging	3
GERO 6906	Perspectives in Gerontology	3
GERO 6960	Epidemiology of Aging	3
GERO 6999	Research Methods	3
GERO/NURS 6998	Anatomy and Physiology of Aging	3
GERO 7090	Field Practicum	3
GERO 7094	Selected Topics	3
<b>Thesis</b>		
GERO 7099	Thesis	3
<b>Elective</b>		
Select 6 s.h. from the following:		6
PSYC 6959	Behavior Change Interventions and Aging	
GERO 7001	Long-Term Care	
SCWK 7006	Social Work in Aging	
GERO 7090	Field Practicum	
GERO 7094	Selected Topics	
<b>Total Semester Hours</b>		<b>36</b>

### Non-Thesis Option

COURSE	TITLE	S.H.
<b>Core Courses</b>		
SOC 6905	Social Gerontology	3
GERO 6915	Service Delivery Aging Policy	3
PSYC 6957	Advanced Adult Development and Aging	3
GERO 6906	Perspectives in Gerontology	3
GERO 6960	Epidemiology of Aging	3
GERO 6999	Research Methods	3
GERO/NURS 6998	Anatomy and Physiology of Aging	3
GERO 7090	Field Practicum	3
GERO 7094	Selected Topics	3
<b>Non-Thesis Track</b>		
Field Practicum		3
<b>Elective</b>		
Select 6 s.h. from the following:		6
PSYC 6959	Behavior Change Interventions and Aging	
GERO 7001	Long-Term Care	
SCWK 7006	Social Work in Aging	

GERO 7090	Field Practicum
GERO 7094	Selected Topics
<b>Total Semester Hours</b>	<b>36</b>

## Graduate Courses

### GERO 6906 Perspectives in Gerontology 3 s.h.

Focus on the major theoretical perspectives of aging and aging related research with a focus on health. Theories from gerontology, epidemiology, sociology, and psychology will be covered.

### GERO 6915 Service Delivery Aging Policy 3 s.h.

An interdisciplinary analysis of services for older adults including an examination of major policies, programs, and trends in aging.

### GERO 6960 Epidemiology of Aging 3 s.h.

Integration and application of epidemiologic theories; major conceptual issues regarding epidemiology and aging; and contemporary interdisciplinary concepts and research. Primary focus will be on the disease distribution and leading causes of death among our aging population.

### GERO 6998 Anatomy and Physiology of Aging 3 s.h.

Using a systems approach, this course will examine the anatomical and physiological changes that occur with aging. It will discuss age-related disorders and evaluate the impact of these changes on activities and daily function.

### GERO 6999 Research Methods 3 s.h.

This course serves as an introduction to major methodological issues and basic statistics in the social-scientific study of gerontology. Major topics include developmental perspective and conceptualization of change, basic developmental research design, conceptualization of research problems, research design, measurement, and data analysis. This course should enable students to formulate research questions, design studies, and determine measurement devices and methods of analysis from a developmental perspective.

### GERO 7001 Long-Term Care 3 s.h.

This course will introduce students to the following topics: who needs long term care; population distribution of long-term care and its current trends; long-term care industry; human medicine and long-term care; social structures and social inequalities in long-term care; culture components of long-term care; family care and social care; government, laws, and social policies of long-term care; and long-term care in a global perspective.

**Prereq.:** GERO 6960.

### GERO 7090 Field Practicum 1-9 s.h.

Students will complete a 200-hour placement in an aging-related workplace. Variable credit 1-6 s.h. May be repeated for up to 9 s.h.

### GERO 7094 Selected Topics 1-3 s.h.

An examination of contemporary topics in the field of gerontology. Examples of subject areas that may be covered: Nutrition, Pharmacology, Legal, etc. variable credit 1-3 hours may be repeated for up to 6 credit hours.

### GERO 7094D Selected Topics Individual Research 1-3 s.h.

An examination of contemporary topics in the field of gerontology. Examples of subject areas that may be covered: Nutrition, Pharmacology, Legal, etc. variable credit 1-3 hours may be repeated for up to 6 credit hours.

### GERO 7094F Selected Topics Health Promotion 1-3 s.h.

An examination of contemporary topics in the field of gerontology. Examples of subject areas that may be covered: Nutrition, Pharmacology, Legal, etc. variable credit 1-3 hours may be repeated for up to 6 credit hours.

### GERO 7099 Thesis 1-3 s.h.

A substantive research project with approval of a committee chair and committee. Variable credit 1-3 s.h. May be repeated for up to 6 s.h.

# Master of Arts in History

## Acting Program Director

Dr. Daniel Ayana  
541 DeBartolo Hall  
(330) 941-1609  
dayana@ysu.edu

## Program Description

The Department of History offers a graduate program leading to the Master of Arts degree. Its curriculum combines American, European, and Transnational/Global areas. The program prepares students for:

- Doctoral study in history or related fields,
- Advancement in secondary and elementary education with a concentration in history and the social sciences,
- Certification in applied history, and/or
- Additional graduate study in a variety of professional areas.

The program also provides the knowledge base for those pursuing history as an avocation. The program concentrates on research and primary materials, written analysis of research results, study of important monographs in all fields of history, and training in a number of specialized fields, such as oral history and historic preservation. The department prides itself on its small classes and close personal attention to all of its master's candidates.

## Admission Requirements

Regular admission will be granted to those students who:

1. Hold a bachelor's degree from an accredited college or university
2. Have earned an undergraduate cumulative grade-point average of at least 2.75 on a 4.0 scale
3. Have a minimum of 16 credit hours of study in the field of history
4. Have submitted a score on the Graduate Record Examination
5. Have submitted a satisfactory academic writing assignment.
6. The above will be compiled and a score of at least 350 points must be achieved from the following calculation:  
Undergraduate GPA multiplied by 100, plus *percentile scores* from the verbal and written-essay sections of the GRE.  
Thus, a student with an undergraduate GPA of 3.25, a verbal GRE at 50<sup>th</sup> percentile, and written essay at 35<sup>th</sup> percentile would score  $325+50+35=410$ .  
(The score for the GRE quantitative section will not be assessed.)

Students not meeting these requirements may be considered for provisional admission or non-degree status instead.

## Graduate Faculty

**Daniel Ayana**, Ph.D., Professor  
Africa; social and economic history

**Brian Bonhomme**, Ph.D., Professor, Chair  
Nineteenth- and twentieth-century Russian history; environmental history

**Eleanor A. Congdon**, Ph.D., Associate Professor  
Medieval; Renaissance; Mediterranean world; maritime history

**Donna M. DeBlasio**, Ph.D., Professor  
Twentieth-century US history; applied history; oral history

**Jacob Labendz**, Ph.D., Assistant Professor  
Jewish history; European history; Holocaust and genocide studies; nationalism, antisemitism, and racism; Communism and the Cold War;

governance and authoritarianism; diaspora and migration; politics and culture of food; film and memory studies

**Thomas E. Leary**, Ph.D., Associate Professor  
Historic preservation; labor and industrial history

**Martha Pallante**, Ph.D., Professor  
Early American studies; material culture; pedagogy

**David A. Simonelli**, Ph.D., Professor  
Britain; British Empire

## Degree Requirements

The Department of History offers three tracks to candidates for a Master of Arts degree in history.

1. Track I is designed primarily for students who wish to continue studies toward a doctorate.
2. Track II is designed primarily to meet the needs and improve the effectiveness of secondary teachers.
3. Track III, the certificate in applied history, is designed to prepare students for career opportunities in that field.

Each candidate for the M.A. in history must pass a written and an oral examination in three fields of concentration. The examination will require factual and interpretative material, as well as bibliography and historiography. Students may only take their comprehensive exams if they are in Good Standing with the College of Graduate Studies.

## Track I (Historic Preservation)

- A total of 30 semester hours of graduate credit including thesis (six semester hours)
- Completion of HIST 6900 Introduction to Historical Research and HIST 6901 Historiography
- A required thesis
- Successful completion of general written and oral examinations

Students working in American or British history will not, in most instances, be required to pass a foreign language examination. In areas where a foreign language is essential for research, the student will have to meet the requirement set by the department, which will include reading knowledge only (no speaking required).

Before any student under option I is allowed to take the written and oral examinations, the advisor will designate to the chair of the Graduate Committee of the Department of History which foreign language, if any, the student is required to know and how this requirement has to be met.

Students under option I are reminded that the Department of History expects that the thesis shall display a capacity for research in a variety of historical sources and the ability to interpret factual information and shall constitute a properly documented report of the completed research.

## Track II (Museum Studies)

- A total of 33 semester hours of graduate credit
- Completion of HIST 6900 Introduction to Historical Research and HIST 6901 Historiography
- Two satisfactory (B or better) graduate seminar papers submitted to two different instructors. The papers will be deposited with the graduate program director to remain permanently on file. The overall course grade for each seminar must also be 'B' or better.
- Successful completion of general written and oral examinations
- Foreign language examination is not required

## Track III (Certificate in Applied History)

The M.A. in history with certificate in applied history is designed both to give students a grounding in American history and historical research at the graduate level and to introduce them to ideas and techniques useful in applied history of the built environment. Students earning the certificate may find work with state or local preservation groups, museums, or government agencies. Students choose from among three possible tracks and then complete an additional 18 semester hours as described below. Students completing the appropriate courses may also earn the certificate only, without the M.A. degree, if they so wish.

COURSE	TITLE	S.H.
<b>Tracks</b>		
Complete one of three tracks.		18
<b>Track I: Historic Preservation</b>		
HIST 5806	American Architectural History 1	
HIST 5807	American Architectural History 2	
HIST 5810	Conservation of the Historic Built Environment	
HIST 6942	Applied History	
HIST 6943	Practicum in Applied History	
HIST 6944	Applied History Internship	
<b>Track II: Museum Studies</b>		
HIST 6941	American Material Culture	
HIST 6942	Applied History	
HIST 6943	Practicum in Applied History	
HIST 6944	Applied History Internship	
HIST 6955	Museum Curation and Interpretation 1	
HIST 6956	Museum Curation and Interpretation 2	
<b>Track III: Applied History Sequence</b>		
HIST 5806	American Architectural History 1	
HIST 6940	Oral History	
HIST 6941	American Material Culture	
HIST 6942	Applied History	
HIST 6944	Applied History Internship	
HIST 6946	Historical Editing	
Select at least one course from one of the tracks listed above that is not the student's primary track.		3
HIST 6900	Introduction to Historical Research	3
HIST 6901	Historiography	3
Complete at least one seminar outside of applied history.		3
Complete at least one readings course.		3
Complete two satisfactory (B or better) graduate papers submitted to two different instructors. One shall be from a history seminar and must be a research paper using primary sources. The other shall be based upon a paper begun in an applied history course, expanded through additional research and reading as directed by the instructor. The papers will be deposited with the graduate program director to remain permanently on file.		
Successful completion of general written and oral examinations		
Foreign language examination is not required.		
<b>Total Semester Hours</b>		<b>33</b>

## Learning Outcomes

1. Students will demonstrate the skills necessary for the historian to analyze information and report findings effectively, by recognizing the difference between primary and secondary resources and being able to critically read and analyze their content; by effectively communicating in written and oral media; and by exhibiting satisfactory critical-thinking and synthesis skills.
2. Students will demonstrate comprehension of the basic concepts that guide the historian's work, by understanding: the concepts of

historiography and that historical interpretation is not fixed but changes over time; the significance of chronologies and the impact of cause and effect; and the importance and impact of cultural diversity on the past and its relevance in the present.

3. Students will demonstrate the ability to employ the skill of the historian to produce an original research project(s) based on primary and secondary sources.

## Graduate Courses

### HIST 5806 American Architectural History 1 3 s.h.

Development of structural styles and trends within the United States, focusing on formal architectural styles.

**Prereq.:** HIST 2605 and HIST 2606.

### HIST 5807 American Architectural History 2 3 s.h.

Development of vernacular, folk, and industrial architecture in the United States. Focus is on local variants with emphasis on 20th Century specimens. Field trips will view representative building types, especially housing.

**Prereq.:** HIST 5806.

### HIST 5810 Conservation of the Historic Built Environment 3 s.h.

The theory and practice of preserving and rehabilitating all aspects of the historic built environment. Provides broad exposure through field experience.

**Prereq.:** HIST 3715.

### HIST 6900 Introduction to Historical Research 3 s.h.

Instruction in the basic tools and techniques of historical research. Required of all candidates for advanced degrees in history.

### HIST 6901 Historiography 3 s.h.

An introduction to the professional study of history, including an examination of the sources and nature of historical knowledge, historical criticism, and synthesis. Required of all candidates for advanced degrees in history.

### HIST 6910 Readings in American History 3 s.h.

Readings in the standard works and monographic studies to meet the requirements of qualified graduate students who wish intensive concentration in specific areas of American history. May be repeated with permission of instructor.

### HIST 6912 Research Seminar in American Colonial History 3 s.h.

Selected problems of early American history. May be repeated with permission of instructor.

### HIST 6913 Research Seminar in 19th-Century America 3 s.h.

Selected problems of American history, 1800-1865. May be repeated with permission of instructor.

### HIST 6914 Research Seminar in 20th-Century America 3 s.h.

Selected problems of American history in the 20th century. May be repeated with permission of instructor.

### HIST 6920 Readings in European Literature 3 s.h.

Readings in the standard works and monographic studies to meet the requirements of qualified graduate students who wish intensive concentration in European history. May be repeated with permission of instructor.

### HIST 6921 Research Seminar in Medieval Culture and Society 3 s.h.

The main intellectual and social currents of the Middle Ages. May be repeated with permission of instructor.

### HIST 6922 Research Seminar in Renaissance and Reformation 3 s.h.

Trends and aspects of the Renaissance and Reformation. May be repeated with permission of instructor.

### HIST 6923 Research Seminar in 17th-Century Europe 3 s.h.

Dutch Commercial Enterprise, the France of Louis XIV, Austria and the Empire, emergence of Brandenburg-Prussia, rise of modern science, the Age of Reason, and the development of the Baroque in arts and literature.

### HIST 6924 Research Seminar in 18th-Century Europe 3 s.h.

Selected areas of the Enlightenment, Old Regime, and the French Revolution. May be repeated with permission of instructor.

**HIST 6925 Research Seminar in 19th-Century Europe 3 s.h.**

The Napoleonic and Post-Napoleonic Era and the rise of nationalism in Europe. May be repeated with permission of instructor.

**HIST 6926 Research Seminar in 20th-Century Europe 3 s.h.**

Investigation of the causes of the great world wars, the rise of totalitarianism, and the Cold War. May be repeated with permission of instructor.

**HIST 6927 Research Seminar in Russian History 3 s.h.**

Selected problems of Russian history. May be repeated with permission of instructor.

**HIST 6928 Research Seminar in British Empire 3 s.h.**

An examination of major problems confronting the British Empire after 1783. May be repeated with permission of instructor.

**HIST 6929 Research Seminar in English History 3 s.h.**

An examination of selected problems in the political, social, economic, and intellectual history of England. May be repeated with permission of instructor.

**HIST 6930 Readings in World History 3 s.h.**

Readings in the standard works and monographic studies to meet the requirements of qualified students who wish concentration in world history. May be repeated with permission of instructor.

**HIST 6932 Research Seminar in Middle Eastern History 3 s.h.**

This course will deal with topics from the ancient Near East down to the contemporary clash of nationalisms in the Middle East. May be repeated with permission of instructor.

**HIST 6934 Readings in African History 3 s.h.**

Readings in the standard works and monographic studies to meet the requirements of qualified graduate students who wish intensive concentration in African history. May be repeated with permission of instructor.

**HIST 6935 Research Seminar in African History 3 s.h.**

Selected problems in the political, social, economic, and intellectual history of Africa. May be repeated with permission of instructor.

**HIST 6939 Labor in US History 3 s.h.**

Emphasis on work processes, workforce composition, and labor organizations in the industrial Midwest.

**HIST 6940 Oral History 3 s.h.**

Instruction in methods of taking, processing, and utilizing oral depositions relating to history. The course includes assignments in the field. May be repeated once.

**HIST 6941 American Material Culture 3 s.h.**

A discussion and analysis of the use and importance of material artifacts as texts for the recovery of the American past. The emphasis will be on nontraditional sources. Examples include children's books, sacred spaces, and foodways.

**HIST 6942 Applied History 3 s.h.**

This course provides an overview of the field of applied history. Topics include historic preservation, museum studies, heritage tourism, archives and related topics.

**HIST 6943 Practicum in Applied History 3 s.h.**

Examines problems in the field of applied history through student participation in a wide variety of community-based projects.

**Prereq.:** HIST 3715 Introduction to Historic Preservation, HIST 6942, or instructor's permission.

**HIST 6944 Applied History Internship 3 s.h.**

Practical application of principles and methods in the field of applied history with the goal of producing a completed project. Internship to be selected by the student in conjunction with the Program Director. May be repeated once.

**Prereq.:** HIST 6942 and approval of program director.

**HIST 6945 Interpretation and Preservation of the Industrial Built Environment 3 s.h.**

Through lectures and readings, this course examines and interprets the industrial built environment. This includes, but is not limited to, factories, neighborhoods, infrastructure, and commercial districts that make up the fabric of industrial communities.

**Prereq.:** Graduate standing and completion of HIST 6942 or permission of instructor.

**HIST 6946 Historical Editing 3 s.h.**

Project-based approach to theoretical and practical aspects of editing historical and literary documents for both print and digital contexts. Topics include document selection, transcription, verification, and annotation, as well as the implications for teaching and learning using traditional print and electronic archives and texts.

**Cross-listed:** ENGL 6946.

**HIST 6950 Studies in the Teaching of History 3 s.h.**

Investigation and discussion of the research and some of the underlying assumptions in the teaching of history, with implications for the teacher of social studies in the secondary schools and for the prospective history professor. Degree students may receive credit for this course only once.

**HIST 6951 Special Topics in History 1-3 s.h.**

Special topics in history selected by the staff. May be repeated up to six semester hours.

**HIST 6952 Independent Study 1-3 s.h.**

Individual study in concentrated areas of history under the supervision of a staff member. May be repeated.

**Prereq.:** Permission of the instructor and the graduate director.

**HIST 6953 Research, Thesis 1-6 s.h.****HIST 6955 Museum Curation and Interpretation 1 3 s.h.**

An introduction to curatorial and interpretative work in a museum setting. Students will learn how to acquire and catalog objects and other materials; plan, research, and write an exhibit; and select objects and images for an exhibit.

**Prereq.:** HIST 6942.

**HIST 6956 Museum Curation and Interpretation 2 3 s.h.**

The exhibit planning begun in HIST 6955 will continue in this course, where the exhibit will actually be prepared and installed.

**Prereq.:** HIST 6955 and permission of the instructor.

**HIST 6957 Special Topics in Applied History 3 s.h.**

This course will focus on topics selected by the applied history faculty.

**Prereq.:** HIST 6942.

**HIST 6958 Historic Preservation Law 3 s.h.**

The study, theory, and practice of law as it relates to historic preservation.

**Prereq.:** HIST 3715 or HIST 6942.

## Master of Arts in Professional Communication

**Program Director**

Rebecca Curnalia, Ph.D.,  
2017 Bliss Hall  
(330) 475-9295  
rncurnalia@ysu.edu

## Program Description

The Master of Arts degree in Interdisciplinary Communication is designed for professionals in any organizational setting who wish to develop advanced communication knowledge and skills, as an end in itself or as preparation for a doctoral degree. In profit and non-profit, academic or non-academic settings, the program learning outcomes will be beneficial to anyone, but especially to managers and administrators.

Graduates will:

- understand how theory guides practice in professional communication;
- write effectively for multiple audiences using current technologies;
- develop strategies for effective organizational marketing;
- acquire advanced analytical and research skills appropriate to organizations;
- gain effectiveness in face-to-face and computer mediated interpersonal relationships; and
- appreciate ethical communication choices necessary for today's professionals.

## Admission Requirements

In addition to the College of Graduate Studies admission requirements, to be admitted to the MA program, students must submit the following information for consideration.

- A current resume outlining academic and professional experience
- A letter of interest explaining how the candidate's academic and/or professional experience and goals align with the MA program
- Official transcript(s) documenting a minimum cumulative GPA of 2.7 on a 4.0 scale. The applicant must send one transcript from each college or university attended, except YSU, to Graduate Admissions in Coffelt Hall.
- Three completed recommendation forms

Students who do not meet the requirements for admission to the MA program may be admitted on a provisional basis.

## Faculty Research Interests

### Communication Studies

**Shelley Blundell**, Ph.D., Assistant Professor

Information literacy needs assessment and instruction for academically at-risk groups; needs assessment and instruction for developmental undergraduate students; media framing of sexual assault and societal impacts; accessibility and universal design in online instruction and information resources; archival literacy; (social) media literacy and metaliteracy development in undergraduate students

**Rebecca M. L. Curnalia**, Ph.D., Associate Professor

Informational and emotional content and effects of political communications; informational and emotional processing; political knowledge; political attitudes; vote choice; political motives; fear appeals; gender bias; grassroots campaigns

**Adam C. Earnhardt**, Ph.D., Professor, Chair

Sports media and fandom; media ethics; social media platforms; applications and campaigns; interpersonal and organizational conflict management and negotiation; public speaking and communication pedagogy

**Cary Wecht**, Ph.D., Professor

Nexus of media use and interpersonal communication; communibiology paradigm; business communication; use of media during 9/11; reality television

### English (Professional AND TECHNICAL WRITING)

**Diana Awad-Scrocco**, Ph.D., Assistant Professor

Professional and technical writing; medical rhetoric and communication; composition pedagogy; writing center theory and practice

**Julia M. Gergits**, Ph.D., Professor

Victorian literature; women's studies; technical writing; literature and the Other

**Jay L. Gordon**, Ph.D., Associate Professor

Rhetoric; technical and professional communication; document design; pedagogy of writing

## Marketing

**Kendra Fowler**, Ph.D., Associate Professor  
Services marketing; retailing

**Bruce Keillor**, Ph.D., Professor, Chair  
Marketing strategy; firm-level political strategy; cross-cultural marketing

**Christina Saenger**, Ph.D., Assistant Professor  
Consumer behavior; social media; identity; branding

**Doori Song**, Ph.D., Assistant Professor  
Advertising effect; consumer motivation; information processing; emerging media

**Emre Ulusoy**, Ph.D., Assistant Professor  
Contemporary consumption; consumer sociology

**Ying Wang**, Ph.D., Associate Professor  
Integrated marketing communication; brand communication; international marketing; e-marketing

The Master of Arts in Interdisciplinary Communication will draw on the coursework and strengths of three concentration areas:

- communication,
- professional writing and editing (in English), and
- marketing.

Students will take courses according to the following plan:

## Thesis Option

COURSE	TITLE	S.H.
<b>Core Courses</b>		
CMST 6900	Introduction to Graduate Study	1
CMST 6957	Organizational Communication Research	3
CMST 6980	Applied Research Methods	3
CMST 6990	Measurement and Analysis	3
ENGL 6943	Technical Communication	3
ENGL 6944	Document Design and Production	3
MKTG 6943	Consumer & Product Management	2
MKTG 6975	Applied Marketing Strategy	2
MBA 6933	Business Ethics & Social Responsibility	1
<b>Thesis Option</b>		
<b>Elective Courses</b>		
Select a total of two, 3-credit courses from at least two of the three concentration areas		6
CMST 6970	Internship	3
CMST 6995	Thesis	6
<b>Total Semester Hours</b>		<b>36</b>

## Non-Thesis Option

COURSE	TITLE	S.H.
<b>Core Courses</b>		
CMST 6900	Introduction to Graduate Study	1
CMST 6957	Organizational Communication Research	3
CMST 6980	Applied Research Methods	3
CMST 6990	Measurement and Analysis	3
ENGL 6943	Technical Communication	3
ENGL 6944	Document Design and Production	3
MKTG 6943	Consumer & Product Management	2
MKTG 6975	Applied Marketing Strategy	2



MBA 6933	Business Ethics & Social Responsibility	1
<b>Non-Thesis Option</b>		
Elective Courses		
Select a total of three, 3-credit courses from at least two of the three concentration areas		9
CMST 6970	Internship	3
CMST 6994	Capstone	3
<b>Total Semester Hours</b>		<b>36</b>

## Learning Outcomes

1. Understand the communication discipline, our relationship to other disciplines, debates and differences, and your own specialization in the field.
2. Apply, critique, and differentiate between Communication theories, perspectives, principles, concepts, and approaches to studying communication.
3. Engage in Communication scholarship using the research traditions of the discipline with results that contribute to scholarly and professional conversations.
4. Create messages appropriate to the audience, purpose, and context, and reflect on the effectiveness of those messages.
5. Articulate personal beliefs about abilities to accomplish communication goals and evaluate strengths and weaknesses in achieving those goals.
6. Identify, explain, and apply ethical communication principles and practices.

## Graduate Courses

### CMST 5852 Conflict Management and Negotiation 3 s.h.

An in-depth analysis of the theories and variables influencing conflict management, resolution, and negotiation. Includes strategies and skills for meditation and arbitration.

**Prereq.:** CMST 2600.

### CMST 5860 Persuasion and New Media 3 s.h.

Introduction to persuasion theory and application of theory to new communication media.

**Prereq.:** CMST 2600 and CMST 3700 or graduate status.

### CMST 5898 Seminar 3 s.h.

A cooperative exploration of topics in communication studies. May be repeated up to 6 s.h.

**Prereq.:** CMST 2600.

### CMST 5898M Seminar Global Seminar France 3 s.h.

A cooperative exploration of topics in communication studies. May be repeated up to 6 s.h.

**Prereq.:** CMST 2600.

### CMST 6900 Introduction to Graduate Study 1 s.h.

Orientation to teaching, learning, and research in the communication discipline for new graduate students.

### CMST 6945 Communication for the Classroom Teacher 3 s.h.

The study of communication theory and practice appropriate for the prospective classroom teacher. Theories and application exercises focus on interpersonal communication, group communication, and classroom speaking.

### CMST 6950 Computer Mediated Communication Research 3 s.h.

Theory, research, and application of CMC including examination of computer communication theories and relevant research methodologies, web design theory and critiques, blogging, podcasting, e-mailing, social media, multimedia storytelling. Design, implementation, and evaluation of CMC.

### CMST 6953 Group Dynamics: Theory and Research 3 s.h.

Theory and research of group processes, critical thinking and creativity strategies, theory of group leadership and teamwork, conflict management and mediation, advanced group decision-making and problem solving, motivational strategies.

### CMST 6957 Organizational Communication Research 3 s.h.

Applies theories of organizational communication to a chosen organization. Culminates with report and presentation.

### CMST 6970 Internship 3 s.h.

Communication-related work in a non-academic professional setting.

**Prereq.:** Completion of the MA core courses.

### CMST 6980 Applied Research Methods 3 s.h.

Introduction to and application of qualitative research methods relevant to business communication settings.

### CMST 6990 Measurement and Analysis 3 s.h.

Research processes using social scientific, quantitative methodologies and practical experience in conducting research. Essential skill development in research design, measurement, data collection and data analysis.

### CMST 6991 Communication Problems: Independent Study 3 s.h.

Individual study and practical application of communication research principles to various organizational, group and mediated communication problems.

### CMST 6994 Capstone 3 s.h.

Applied research paper on a communication topic. Oral presentation required. For non-thesis option students only. Thesis option students should take CMST 6995: Thesis.

**Prereq.:** Completion of the MA core courses.

### CMST 6995 Thesis 1-6 s.h.

Research study on an applied communication topic. Oral presentation required. Total of 6 s.h. required for the MA thesis option. For thesis option students only. Non-thesis option students should take CMST 6994: Capstone.

**Prereq.:** Completion of the MA core courses.

# Master of Athletic Training

## Program Director

Jessica Wallace, PhD, AT, ATC  
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## Program Description

The Master of Athletic Training (MAT) degree is offered through the Bitonte College of Health and Human Services. The professional preparation coursework in this program encompass the professional domains of athletic training. The overall objectives of the YSU Athletic Training Education Program are to instruct, evaluate, and provide learning-over-time for students in the following professional domains:

1. **Injury/Illness Prevention and Wellness Protection:** Students identify injury, illness and risk factors associated with participation in sport/physical activity and implement all components of a comprehensive wellness protection plan and injury prevention program.
2. **Clinical Evaluation and Diagnosis:** Students conduct a thorough initial clinical evaluation of injuries and illnesses commonly sustained by the athlete/physically active individual and formulate an initial diagnosis of the injury and or illness for the primary purposes of administering care or making appropriate referrals to physicians for further diagnosis and medical treatment.
3. **Immediate and Emergency Care:** Students provide appropriate first aid and emergency care for acute injuries according to accepted standards and procedures, including effective communication for appropriate and efficient referral, evaluation, diagnosis, and follow up care.
4. **Treatment and Rehabilitation:** Students plan and implement a comprehensive treatment, rehabilitation and/or reconditioning program for injuries and illnesses, including long and short-term goals, for optimal performance and function.

5. **Organizational and Professional Health and Well-being:** Students plan, coordinate and supervise the administrative components of an athletic training program, comply with the most current BOC practice standards and state/federal regulations, and develop a commitment to life-long learning and evidence-based clinical practice

The MAT Program at YSU prepares students for entry-level athletic training practice across health care settings involving people of all ages. The program is two years with enrollment in five consecutive semesters either with one year at the undergraduate level and one year at the graduate level (accelerated track program) or both years at the graduate level (two-year Graduate School option).

YSU AT students are educated in cognitive and psychomotor skills related to recognition, treatment, and rehabilitation of injuries and illnesses involving the physically active, as well as risk management, health care administration, pharmacology, diagnostic imaging, and medical ethics and legal issues. In addition to the coursework, students are required to complete a minimum number of clinical education hours in a variety of settings.

## Admission Requirements

- Bachelor degree from an accredited institution
- Minimum 3.00 GPA average (based on 4.0 scale) in all coursework taken for the bachelor degree
- Complete the following prerequisite courses with a minimum grade of "C":
  - Sports First Aid & Injury Prevention, 3 s.h.
  - Human Anatomy & Physiology I, 4 s.h.
  - Human Anatomy & Physiology II, 4 s.h.
  - General Biology I and Lab, 4 s.h.
  - General Chemistry and Lab, 4 s.h.
  - Physics and Lab, 4 s.h.
  - Kinesiology or Biomechanics, 3 s.h.
  - Exercise Physiology, 3 s.h.
  - General Psychology, 3 s.h.
  - Normal Nutrition, 3 s.h.
  - Statistics, 3 s.h.
- Apply by February 15<sup>th</sup>, - Apply online! (<http://cms.ysu.edu/college-graduate-studies/domestic-admissions>)
  - Athletic Training Application Form
  - Three Applicant Recommendation Forms (one must be from a faculty member)
  - A resume or curriculum vitae
  - Proof of 50hrs of athletic training observation
  - A personal statement (2pg maximum) of professional and educational goals to address the following:
    - What are your short- and long-term goals (i.e., education, training, work setting, etc.)
    - Discuss personal and professional influences that led you to want to become an athletic trainer and graduate student.
  - Official Academic Transcripts

## Graduate Faculty

**Yongung Kwon**, Ph.D., Assistant Professor

**Jessica Wallace**, Ph.D., Assistant Professor

Sport-related concussion; concussion and reporting behaviors in urban communities with high school aged athletes; return-to-learn strategies at school following a concussion; issues of access to health care for concussion injuries in lower SES communities

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
MAT 6900	Basic Athletic Training Laboratory	1
MAT 6915	Evaluation and Management of Lower Extremity Injuries	4
MAT 6910	Clinical Practicum 1	4
MAT 5865	Functional Human Gross Anatomy	4
<b>Semester Hours</b>		<b>13</b>
<b>Spring</b>		
MAT 6920	Therapeutic Modalities	4
MAT 6925	Evaluation and Management of Upper Extremity Injuries	4
MAT 6930	Clinical Practicum 2	4
MAT 6935	Athletic Training Organization and Administration	3
<b>Semester Hours</b>		<b>15</b>
<b>Summer</b>		
MAT 6905	Psychosocial Aspects of Athletic Injuries	2
MAT 6950	Evidence-Based Practice/Research	3
MAT 6965	Advanced Perspectives	2
<b>Semester Hours</b>		<b>7</b>
<b>Year 2</b>		
<b>Fall</b>		
MAT 6940	Therapeutic Exercise	4
MAT 6945	General Medical Conditions	3
MAT 6960	Clinical Practicum 3	4
MAT 6985	Capstone Project 1	2
<b>Semester Hours</b>		<b>13</b>
<b>Spring</b>		
MAT 6970	Pharmacology	3
MAT 6975	Advanced Seminar	3
MAT 6980	Clinical Practicum 4	4
MAT 6990	Capstone Project 2	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>60</b>

## Learning Outcomes

1. Students will be able to identify injury, illness and risk factors associated with participation in sport/physical activity and implement all components of a comprehensive wellness protection plan and injury prevention program.
2. Students will be able to conduct a thorough initial clinical evaluation of injuries and illnesses commonly sustained by the athlete/physically active individual and formulate an initial diagnosis of the injury and or illness for the primary purposes of administering care or making appropriate referrals to physicians for further diagnosis and medical treatment.
3. Students will be able to provide appropriate first aid and emergency care for acute injuries according to accepted standards and procedures, including effective communication for appropriate and efficient referral, evaluation, diagnosis, and follow up care.
4. Students will be able to plan and implement a comprehensive treatment, rehabilitation and/or reconditioning program for injuries and illnesses, including long and short-term goals, for optimal performance and function.
5. Students will be able to plan, coordinate and supervise the administrative components of an athletic training program, comply with the most current BOC practice standards and state/federal regulations, and develop a commitment to life-long learning and evidence-based clinical practice

## Graduate Courses

### **MAT 5865 Functional Human Gross Anatomy 4 s.h.**

The primary tool for learning gross anatomy is the human body. The laboratory prosections will present a regional approach (e.g., arm region, forearm region, etc.). General introductory and systemic anatomy topics (e.g., circulatory system, nervous system, etc.) will also be presented to help the student integrate the regional focus of the course into a broader anatomical perspective. The introductory section of the textbook is a good source of general information on systemic anatomy. Students are advised to read these chapters as early in the semester as possible, and to refer back to it as systemic anatomy topics are covered in lecture.

**Prereq.:** restricted to MAT students, instructor approval.

### **MAT 5865L Functional Human Gross Anatomy Lab 0 s.h.**

Functional Human Gross Anatomy Lab.

### **MAT 6900 Basic Athletic Training Laboratory 1 s.h.**

This laboratory course is an introduction to psychomotor skills associated with sports and fitness injury recognition, evaluation and management. The course emphasizes the development of competency in essential entry-level athletic training skills. Topics include injury and illness assessment skills, injury prevention techniques, and prophylactic bracing, taping and support techniques.

**Prereq.:** Admitted to the program.

### **MAT 6905 Psychosocial Aspects of Athletic Injuries 2 s.h.**

This course examines issues related to the psychological impact and sociological factors related to exercise, injury, and illness, inactivity and rehabilitation following sports injury. Particular emphasis is placed on developing strategies for identifying problems, intervening, and making referrals for commonly encountered injuries and illnesses.

**Prereq.:** Admitted to the program.

### **MAT 6910 Clinical Practicum 1 4 s.h.**

Introduction to basic clinical experience working in a CAATE approved setting.

**Prereq.:** Admitted to the program.

### **MAT 6915 Evaluation and Management of Lower Extremity Injuries 4 s.h.**

The primary focus is to present a systematic process for accurately evaluating lower extremity musculoskeletal injuries and illnesses commonly seen in the physically active population. This course focuses on the athletic training competencies and proficiencies associated with lower extremity injury assessment and evaluation, risk management and injury prevention, and the acute care of injuries and illnesses.

**Prereq.:** Admitted to the program.

### **MAT 6920 Therapeutic Modalities 4 s.h.**

This course focuses on the use of therapeutic modalities in the treatment and rehabilitation of the injured athlete. The course will present the physiological and mechanical modalities. Students will investigate the current literature on the safe and effective application of various modalities and their appropriate integration into a well-designed rehabilitation program.

**Prereq.:** MAT 6900.

### **MAT 6925 Evaluation and Management of Upper Extremity Injuries 4 s.h.**

This course is designed to continue with the development of the injury evaluation process, injury mechanisms associated with common sports injuries, and increased recognition of pathologies associated with a physically active population. Instruction and experience are directed toward the athletic training and competencies and proficiencies associated with the upper extremity, hand, and neck recognition, assessment, and evaluation, risk management and injury prevention and implications for acute care.

**Prereq.:** MAT 6915.

### **MAT 6930 Clinical Practicum 2 4 s.h.**

Involves both a clinical education experience which provides for integration of athletic training psychomotor, cognitive, and affective skills, and clinical proficiencies; and field experience providing informal learning and practice and application of clinical proficiencies in a clinical environment under the supervision of an approved instructor.

**Prereq.:** MAT 6910.

### **MAT 6935 Athletic Training Organization and Administration 3 s.h.**

This course is a requirement for students in athletic training. It deals primarily with the administrative competencies necessary to accomplish the successful day-to-day operation of an athletic training program and facility.

**Prereq.:** MAT 6900, MAT 6910.

### **MAT 6940 Therapeutic Exercise 4 s.h.**

A study of the indications, contraindications, physiological effects, special programs, and resistance methods that are used in the prevention and rehabilitation of athletic injuries. The focus of this course is to develop the cognitive competencies necessary for the safe, effective, and evidenced-based application of therapeutic rehabilitation techniques in a physically active patient population.

**Prereq.:** MAT 6920, MAT 6925.

### **MAT 6945 General Medical Conditions 3 s.h.**

Many conditions that beset athletes, performers, and other patients and not musculoskeletal in nature. The athletic trainer must be cognizant of these - and well versed in their diagnosis and management - in order to be fully equipped to administer proper and comprehensive healthcare.

**Prereq.:** MAT 6925.

### **MAT 6950 Evidence-Based Practice/Research 3 s.h.**

This course will introduce the research process in athletic training. Coursework will address the conception and methodological procedures of designing and pursuing research. The importance of pursuing quality research will be stressed and the procedures necessary to complete this process will be presented. Students will develop skills and a knowledge base that will aid them while conducting and critically reviewing research.

**Prereq.:** MAT 6930.

### **MAT 6960 Clinical Practicum 3 4 s.h.**

Involves both a clinical education experience which provides for integration of athletic training psychomotor, cognitive, and affective skills, and clinical proficiencies; and field experiences providing informal learning and practice and application of clinical proficiencies in a clinical environment under the supervision of an approved instructor.

**Prereq.:** MAT 6930.

### **MAT 6965 Advanced Perspectives 2 s.h.**

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**Prereq.:** MAT 6945.

### **MAT 6970 Pharmacology 3 s.h.**

This course serves as an introduction to pharmacology for students pursuing careers in Athletic Training. The molecular world of pharmaceutical processes and cellular biochemical determinants of therapeutic interventions will be explored. An understanding of the fundamental principles of therapies for various conditions will be discussed. Constraints placed on athletes in the performance environment, and correct protocols with medication management for athletes will be discussed.

**Prereq.:** MAT 6945, MAT 6950.

### **MAT 6975 Advanced Seminar 3 s.h.**

This course is designed to explore the identification and treatment of athletic injuries. The information and skills are intended for those students with relatively high level of sophistication in sports medicine. This course is a writing intensive and research orientated upper division course.

**Prereq.:** MAT 6935, MAT 6950.

### **MAT 6980 Clinical Practicum 4 4 s.h.**

Involves both a clinical education experience which provides for integration of athletic training psychomotor, cognitive, and affective skills, and clinical proficiencies; and field experiences providing informal learning and practice and application of clinical proficiencies in a clinical environment under the supervision for an approved instructor. Athletic training students are required to be involved in clinical education and field experiences in order to gain entry-level proficiencies in the profession.

**Prereq.:** MAT 6960.

**MAT 6985 Capstone Project 1 2 s.h.**

This course will develop skills and a knowledge base that will aid the student while conducting and critically reviewing research in athletic training. Coursework will address the design of research in athletic training. The importance of pursuing quality research in athletic training will be stressed and the procedures necessary to complete this process will be presented.

**Prereq.:** MAT 6930 and MAT 6935.

**MAT 6990 Capstone Project 2 2 s.h.**

Coursework will focus on developing the skills needed to critically synthesize material with accepted practice, and prepare professional presentations using acquired data and an appropriate statistical analysis. The importance of pursuing quality research in athletic training will be stressed and the procedures necessary to complete this process will be presented.

**Prereq.:** MAT 6950, MAT 6985.

## Master of Business Administration

### Program Director

Dr. Patrick J. Bateman  
3355 Williamson Hall  
(330) 941-3524  
pjbateman@ysu.edu

### M.B.A. Coordinator

Monique Bradford  
1120 Williamson Hall  
(330) 941-3069  
mrbradford@ysu.edu

### Program Description

The Master of Business Administration program is designed primarily to prepare individuals for increasing levels of managerial responsibilities and executive positions. The program provides qualified individuals with a working-knowledge of accounting, finance, management, and marketing, as well as their interrelationships and applications. Through immersion in real-world problems and leadership practice, individuals develop the skills and confidence to face challenges in any functional area. M.B.A. graduates are educated to be capable of identifying complex problems, conducting critical analyses, and making informed and ethical decisions in the dynamic global environment.

### Accreditation

The Master of Business Administration program is fully accredited by the Association to Advance Collegiate Schools of Business (AACSB) International. Fewer than one-third of the 1200 business schools in the United States have earned this prestigious accreditation.

### Admission Requirements

In addition to the minimum requirements for admission to the YSU College of Graduate Studies, regular admission to the MBA program is based on a determination of the applicant's readiness. This determination incorporates applicant's:

1. years of relevant, full-time, managerial and/or professional work experience<sup>1</sup>,
2. cumulative GPA, and
3. if needed, cumulative score on the Graduate Management Admission Test (GMAT) or its Graduate Record Examination (GRE) equivalence.

These factors are weighted in the calculation of a Readiness Index Score (RIS), which is the sum of:

1. Years Full-Time Managerial and/or Professional Work Experience<sup>1</sup> x 100
2. Cumulative GPA x 200
3. GMAT or GRE equivalent Score (if needed)

Admission decisions are based on this score. Applicants with a Readiness Index Score of:

- **1200 and above:** admitted into the MBA program with regular status
- **1050 to 1199 (or GPA below 2.7):** personal interview and additional information may be requested by MBA admissions. Admission decision could result in regular admission, provisional admission, or not admitted.
- **Below 1050:** not admitted to MBA program

### Graduate Faculty

**Rebecca Lee Badawy**, Ph.D., Assistant Professor  
Identity; imposter phenomenon; person-environment fit; leadership; social influence

**Patrick J. Bateman**, Ph.D., Associate Professor  
Social media; privacy and publicness on the Internet; E-commerce; online communities; social and immersive computing environments (e.g., virtual worlds); computer mediated communication; business use of information systems

**Huaiyu (Peter) Chen**, Ph.D., Associate Professor  
Equity market; abnormal return

**Ramesh Dangol**, Ph.D., Associate Professor  
Strategic management; dynamic capabilities; entrepreneurial opportunity recognition; firm failures

**Rangamohan V. Eunni**, D.B.A., Professor, Chair  
Strategic management; international strategy; emerging markets

**Kendra Fowler**, Ph.D., Associate Professor  
Services marketing; retailing

**Guohong (Helen) Han-Haas**, Ph.D., Associate Professor  
Leadership and diversity; employee attitudes and team development; social network and multilevel studies

**Birsen Karpak**, D.B.A., Professor  
Management science; operations management

**Bruce Keillor**, Ph.D., Professor, Chair  
Marketing strategy; firm-level political strategy; cross-cultural marketing

**Anthony J. Kos**, Ph.D., Professor  
Organizational behavior; human resource management; strategic management

**Karin A. Petruska**, Ph.D., Associate Professor  
Financial accounting and reporting; international accounting; earnings quality and disclosure; analyst following; forensic accounting

**Christina Saenger**, Ph.D., Assistant Professor  
Consumer behavior; social media; identity; branding

**Jeremy T. Schwartz**, Ph.D., Assistant Professor  
Practice-based case studies; public pensions

**Doori Song**, Ph.D., Assistant Professor  
Advertising effect; consumer motivation; information processing; emerging media

**Emre Ulusoy**, Ph.D., Assistant Professor  
Contemporary consumption; consumer sociology

**Ying Wang**, Ph.D., Associate Professor

Integrated marketing communication; brand communication; international marketing; e-marketing

**Fran Marie Wolf, Ph.D., Professor**

Financial management; advanced financial analysis

The MBA program is designed around the development of individuals to become better managers and executives through developing capabilities that allow them to be better decision makers, leaders, managers, and strategic thinkers.

COURSE	TITLE	S.H.
<b>Capabilities</b>		
<b>Decision Making</b>		
FIN 6902	Financial Accounting and Finance for Decision Making	1
ECON 6921	Economic Analysis of Markets and Industries	2
ACCT 6922	Accounting for Managerial Decisions	2
FIN 6923	Corporate Financial Management	2
MGT 6926	Decision Making Techniques	2
<b>Business Leadership</b>		
MGT 6930	Managing and Leading in Organizations	2
MBA 6931	Effective Business Communication	1
MBA 6932	Professionalism & Career Management	1
MBA 6933	Business Ethics & Social Responsibility	1
<b>Managing</b>		
MGT 6941	Managing Organizational Talent	2
MKTG 6943	Consumer & Product Management	2
MGT 6944	Managing Business Processes	2
MGT 6947	Managing Information & Technology	2
MGT 6948	Project Management	2
<b>Strategic Thinking</b>		
MBA 6970	Global Business	2
MKTG 6975	Applied Marketing Strategy	2
MGT 6975	Strategic Management <sup>1</sup>	2
MGT 6976	Strategic Consulting Project <sup>1</sup>	2
MBA 6977	Integrative Business Analysis	1
<b>Specialization, Concentration, Electives</b>		
A minimum of 6 s.h. of elective course must also be taken		6
<b>Total Semester Hours</b>		<b>39</b>

<sup>1</sup> All applicants must submit a resume providing detail of their work experience. The resume will be reviewed to evaluate the relevance of full-time, managerial and/or professional work experience. Applicants are automatically admitted into the MBA program with regular status if they have earned a: terminal degree (PhD, MD, or JD) in any discipline, or a master's degree for an accredited U.S. college or university.

## Learning Outcomes

The Williamson MBA prepares our graduates to be successful:

- Decision Makers, skilled at utilizing analytical abilities to interpret information, diagnose business problems, and evaluate value creating solutions.
- Managers, proficient at effectively communicating (both verbal and written) analyses and recommendations, based on their knowledge of core business processes, issues, and environments.
- Strategic Thinkers, adept at formulating solutions, and making recommendations, that address complex business problems and capitalize on new opportunities.

- Leaders, capable of directing, and working with, teams to achieve business objectives.

## Graduate Courses

### **BUS 6920 Global Business Environment 3 s.h.**

The environments and operating issues affecting firms doing business in the global arena. Economic, cultural, political, legal, and competitive environments are covered, along with the global management of functional areas including finance, marketing, operations, and human resources.h.

**Prereq.:** Completion of all level I MBA coursework, MGT 6921, MKTG 6942, FIN 6921.

**Cross listed with** FIN 6920 and MKTG 6920 3 s.

### **BUS 6940 Data Analytics and Data Management 3 s.h.**

Course emphasis is on knowledge and skills required by accountants and managers to collect, manage, analyze extremely large volumes of data in various formats from numerous sources. Focus will be given to results that management of data brings to an organization. It will cover a broad spectrum of topics chosen from the following: predictive analytics, enterprise architecture, security, knowledge through data discovery, data visualization, ethics data quality, advanced data modeling. It will include hands-on use of available software found in industry practices, with an emphasis on spreadsheets.

### **FIN 6900 Financial Accounting and Finance for Decision Making 4 s.h.**

A survey of the fundamental concepts of financial accounting employed by general managers. Additionally, a survey of the concepts, principles, and practices of financial management used by general managers and the links between the two types of information. Permit required.

### **FIN 6902 Financial Accounting and Finance for Decision Making 1 s.h.**

Participants be able to utilize foundational concepts of accounting and finance so they are able to use financial statements to determine the condition of a business. Further, participants will learn how to utilize key financial ratios, which capture key elements of a firm's performance, to be better positioned to make more informed decisions.

**Prereq.:** Graduate standing.

### **FIN 6910 Business Internship 1-3 s.h.**

Provides graduate students the opportunity to relate theory to practice through on-the-job work experience with a participating organization. The internship will serve as an elective MBA course.

**Prereq.:** Completion of level I MBA coursework and six semester hours of level II MBA coursework.

### **FIN 6923 Corporate Financial Management 2 s.h.**

Participants will develop a working knowledge of corporate financial issues and apply analytical tools to make better corporate financial decisions. Participants will be capable of making decisions relating to capital budgeting, capital structure, dividend policy, acquisitions and buyouts in order to maximize firm, shareholder and investor value.

**Prereq.:** FIN 6902.

### **FIN 6924 Securities Analysis 3 s.h.**

The major emphasis will be an in-depth, fundamental analysis of the investment merits of the common stock of a firm. This study will be accomplished by applying the appropriate analytical principles and valuation techniques to the firm's financial statements. A research paper will be required.

**Prereq.:** FIN 6923.

### **FIN 6939 Multinational Accounting and Finance 3 s.h.**

A cross-functional examination of selected topics in international accounting and finance with emphasis on developing research and problem-solving skills. Cases will be presented that teach the strategy and tactics of multinational corporate reporting and financial management.

**Prereq.:** FIN 6923.

**FIN 6945 Business Valuation 3 s.h.**

A study of business valuation techniques currently used in valuing publicly traded and private equity.

**Prereq.:** "C" or better in FIN 3720 or FIN 6900.

**FIN 6953 Advanced Financial Analysis 3 s.h.**

Applications of financial analysis to business consulting. Includes case studies and practical implementation strategies.

**Prereq.:** FIN 6923.

**FIN 6968 Special Topics in Finance 1-3 s.h.**

Topics may vary from semester to semester and will be announced with prerequisites and hours. May be repeated.

**FIN 6970 Seminar in Finance 3 s.h.**

Specific topics selected by the staff from timely and controversial work published in the field.

**Prereq.:** All core courses, plus at least six hours (6900-level) in the finance concentration, or permission of instructor.

**FIN 6996 Research Problems 1-4 s.h.**

Special research project under the supervision of a graduate faculty member. Credit will be determined in each case in light of the nature and extent of the project.

**Prereq.:** Fifteen hours of level II MBA coursework or permission of MBA director.

**MBA 6931 Effective Business Communication 1 s.h.**

Effective communication is a critical component for success in the workplace. Participants will learn to design effective messages, both written and oral, for a variety of business audiences and environments. Additionally, participants will be able to manage other issues relevant to business communication, such as reputation management, employee communication and crisis management.

**Prereq.:** Graduate standing.

**MBA 6932 Professionalism & Career Management 1 s.h.**

Participants will learn how to effectively present themselves in the workplace and position themselves for new opportunities - either through advancement or with a new organization. Participants will be able to analyze career choices through a focus on assessments and experiences, engage in more effective job search to find a career that reflects their values, skills and interests.

**Prereq.:** Graduate standing.

**MBA 6933 Business Ethics & Social Responsibility 1 s.h.**

Today, businesses must operate in increasingly complex environments, requiring their leaders to make decisions with considerations other than just 'the bottom line.' Participants will be able to better understand their personal and social responsibilities as business managers. In addition, participants will be equipped to not only recognize ethical issues, but to react to them by applying ethical decision-making models.

**Prereq.:** Graduate standing.

**MBA 6970 Global Business 2 s.h.**

Economic, cultural, political and legal differences across countries create unique challenges in today's global business landscape. To become more effective managers in this global arena, participants will examine how these issues impact the management of finance, marketing, operations and human resources.

**Prereq.:** Graduate standing.

**MBA 6977 Integrative Business Analysis 1 s.h.**

To develop an integrative view of organizations, students will utilize and incorporate key concepts learned throughout the courses of the MBA program to analyze, synthesize and present recommendations on a current business case.

**Prereq.:** MGT 6975 (or concurrent).

**MGT 5835 Systems Analysis and Design 3 s.h.**

Information systems and system development life cycle (SDLC) sizing tools and techniques used to document an information system.

**Prereq.:** MGT 3761 AND 2.5 GPA.

**MGT 5845 Work in America 3 s.h.**

Examines the changing characteristics, expectations, and representations of work in America. Includes the exploration of demographic, historic, economic, technological, sociological, religious, ethical, popular, and poetic perspectives on work.

**Prereq.:** MGT 3715 or Junior standing and 6 s.h. of GER approved SI courses.

**MGT 5865 Database Management Systems 3 s.h.**

Design and management of organizational data resources. Database issues include design, definition, creation, documentation update, maintenance, revision, selection, acquisition, and use. The implementation of the hierarchical, network, and relational models with emphasis on business applications.

**Prereq.:** MGT 3761 and 2.5 GPA.

**MGT 6910 Business Internship 1-3 s.h.**

Provides graduate students the opportunity to relate theory to practice through on-the-job work experience with a participating organization. The internship will serve as an elective MBA course.

**Prereq.:** Completion of level I MBA coursework and six semester hours of level II MBA coursework.

**MGT 6926 Decision Making Techniques 2 s.h.**

Application of computer-based, mathematical modeling techniques to support managerial decision making, with emphasis on problem formation, sensitivity analysis, and other aspects of model interpretation.

**Prereq.:** Graduate Standing 2 s.h.,

**MGT 6930 Managing and Leading in Organizations 2 s.h.**

Participants will learn principle techniques and develop capabilities to allow them to become better managers. Key to this ability of being a strong manager and leader is an understanding of the interrelationship of organizational functions embodied through organization design, enhancing employee productivity, communication, authority-power relationships, group behavior, and leading organizational change.

**Prereq.:** Graduate standing.

**MGT 6941 Managing Organizational Talent 2 s.h.**

The study of individual and group motivation theories as applied to organizations with the intention of extracting optimum performance. Topics include strategic human resource management, recruitment, selection, employee testing, performance appraisal, and the design of appropriate reward systems.

**Prereq.:** Graduate standing.

**MGT 6944 Managing Business Processes 2 s.h.**

Participants will learn techniques and develop capabilities that will facilitate the management of business processes through the examination of product design and selection, plant layout, aggregated planning, scheduling and quality control.

**Prereq.:** MGT 6926.

**MGT 6945 Business Process Integration 2 s.h.**

This course examines the forces driving enterprise integration as well as the management decisions associated with the design and implementation of enterprise systems. Students successfully completing this course will have a thorough understanding of enterprise integration as well as practical experience configuring and using SAP/ERP, the leading enterprise resource planning system.

**Prereq.:** FIN 6902.

**MGT 6946 Supply Chain Management 2 s.h.**

This course covers a number of supply-chain related topics including: Inventory Models (consumption-based planning), Advanced Purchasing exercises, MRP, and Repetitive Manufacturing.

**Prereq.:** MGT 6944.

**MGT 6947 Managing Information & Technology 2 s.h.**

Information and technology are indispensable tools for creating business efficiencies, serving customers, and generating business opportunities. With these outcomes in focus, participants will develop capabilities that allow them to better manage the design, implementation, and utilization of information systems to create organizational value.

**Prereq.:** Graduate standing.

**MGT 6948 Project Management 2 s.h.**

Participants will develop core-capabilities of a project manager, including the ability to plan, schedule, control, allocate resources, and assess performance of organizational projects. By focusing on work breakdown structures, scheduling, PERT/CPM, controlling and managing costs, project termination, and risk management, participants will obtain a working-knowledge of fulfilling the role of project manager.

**Prereq.:** Graduate standing.

**MGT 6954 International Management 3 s.h.**

Planning, organizing, and control within the context of a multinational corporation, with emphasis upon problems of adaptation to different sociological, cultural, legal, political, and economic environmental characteristics.

**Prereq.:** MGT 6961, plus six semester hours of level II MBA coursework.

**MGT 6958 Managing in Emerging Economies 3 s.h.**

This course focuses on the macro and competitive environments in selected emerging markets, the unique institutional and regulatory factors influencing in these markets, and the strategic and operational approaches required to succeed in these markets.

**Prereq.:** Completion of level I MBA coursework and 6 hours of level II MBA coursework.

**MGT 6960 Strategic Issues Facing Multinational Enterprises in the 21st Century 3 s.h.**

This course focuses on strategic issues facing multinational enterprises to enable students to gain insight into a range of conceptual models and empirical methodologies in the field of global strategic management and to apply these concepts and models in the analysis of practical case situations.

**Prereq.:** MBA 6970.

**MGT 6968 Special Topics in Management 1-3 s.h.**

Topics may vary from semester to semester and will be announced along with prerequisites and hours. May be repeated.

**MGT 6970 Entrepreneurship 3 s.h.**

An in-depth analysis of the elements of entrepreneurship, the process of planning and starting a business, the cross-functional skills required to manage a successful start-up, and the special circumstances of small business management.

**Prereq.:** Six semester hours of level II MBA coursework.

**MGT 6975 Strategic Management 2 s.h.**

With an emphasis on problems of executive management, decision making, and administrative action, participants will develop strategic thinking capabilities through an examination of the design, implementation, and evaluation of business strategy and policy. Must be taken concurrently with MGT 6976.

**Prereq.:** FIN 6923, MGT 6930, MGT 6944, MKTG 6975.

**MGT 6976 Strategic Consulting Project 2 s.h.**

An applied learning experience in which participants utilize knowledge and capabilities gained throughout the MBA program to engage in collaborative consultation with a business. The focus is on the development of strategic recommendations that will assist the client organization in addressing existing and emerging challenges.

**Prereq.:** Must be taken concurrently with MGT 6975.

**MGT 6996 Research Problems 1-3 s.h.**

Special research project under the supervision of a graduate faculty member. Credit will be determined in each case in light of the nature and extent of the project.

**Prereq.:** Fifteen hours of level II MBA courses or permission of MBA director.

**MKTG 6910 Business Internship 1-3 s.h.**

Provides graduate students the opportunity to relate theory to practice through on-the-job work experience with a participating organization. The internship will serve as an elective MBA course.

**Prereq.:** Completion of level I MBA coursework and six semester hours of level II MBA coursework.

**MKTG 6943 Consumer & Product Management 2 s.h.**

An applied examination of marketing as a business process by which products are matched with markets and through which transfers of ownership are affected.

**Prereq.:** Graduate standing.

**MKTG 6948 Global Marketing Communication 2 s.h.**

The course explores how culture and globalization impact marketing and communication activities of companies operating in multiple markets or multinational companies entering or operating in countries outside their home market. Provide extensive understanding of the issues and challenges in marketing communication through a global perspective.

**Prereq.:** MKTG 3703 or MKTG 6975.

**MKTG 6949 International Marketing Management 3 s.h.**

The functions, problems, and decision-making processes of marketing executives in business organizations involved in foreign markets are studied. Students are given the opportunity to develop foreign market evaluations applying classroom knowledge to practical decision problems. Involvement of the student on an individual basis is stressed.

**Prereq.:** MKTG 6975.

**MKTG 6951 Export Strategy 3 s.h.**

The student will learn how to manage and operate an export-based business. The focus will be on identifying local products, local companies, and an international opportunity to export by researching a specific market and working directly with a local firm.

**MKTG 6968 Special Topics in Marketing 1-3 s.h.**

Topics may vary from semester to semester and will be announced along with prerequisites and hours. Course may be repeated.

**MKTG 6968N Selected Topics Customer Analytics 1-3 s.h.**

Topics may vary from semester to semester and will be announced along with prerequisites and hours. Course may be repeated.

**MKTG 6975 Applied Marketing Strategy 2 s.h.**

Through applied learning experiences, students develop abilities to analyze markets, plan, design and implement effective marketing strategies in the areas of product, promotion, pricing, and distribution. Emphasis is on the integration of the marketing function with other business activities.

**Prereq.:** MKTG 6943.

**MKTG 6996 Research Problems 1-5 s.h.**

Special research project under the supervision of a graduate faculty member. Credit will be determined in each case in light of the nature and extent of the project.

**Prereq.:** Fifteen hours of level II MBA coursework or permission of MBA director.

# Master of Computing and Information Systems

## Program Director

Dr. Alina Lazar  
307C Meshel Hall  
(330) 941-2981  
alazar@ysu.edu

## Program Description

The Master of Computing and Information Systems is designed to emphasize important applied areas of computing, providing background in the overall structure of information systems, in-depth knowledge in vital areas, such

as databases and networking, and opportunities to learn a variety of other important, emergent, and current areas of computing, such as web design, application development, and computer security.

The program is designed to serve students with some background in computing (possibly work related) but who need additional deeper, more comprehensive, or more up-to-date knowledge of computing/information systems in order to make career advancements or to better utilize the technology that they are required to use on a daily basis.

Like most applications of information systems, the program is also interdisciplinary in nature to allow students with a background in areas other than information systems to learn how to apply information systems to those areas. A number of interdisciplinary courses are supported, and students may take elective courses outside of the department.

## Admission Requirements

In addition to the minimum College of Graduate Studies admission requirements, students must also have previous courses in or the equivalent of:

COURSE	TITLE	S.H.
CSIS 1590	Survey of Computer Science and Information Systems (or equivalent of information systems courses)	3
CSIS 2610	Programming and Problem-Solving (or equivalent of computer programming)	4
CSIS 3700	Data Structures and Objects (or equivalent of computer programming)	4
CSIS 3722	Development of Databases (or equivalent of databases courses)	3
CSIS 3723	Networking Concepts and Administration (or equivalent of networking courses)	3
or CSIS 3782	Cisco Networking Academy 1	
INFO 3704	Business Communication (or equivalent of technical communication skills courses)	3

Equivalent employment-related experience may be substituted for some of these requirements. The experience must be described in detail and reliably documented (in a letter of recommendation from an employer, for example).

Students are also required to submit a résumé, a written statement describing their past experience in computing/information systems (both employment and academic), and their reasons and goals for applying to the program. The Graduate Record Examination (general test) is also required and students must obtain an acceptable score.

Students not satisfying all admission requirements may be admitted with provisional status subject to the approval of the graduate program director and the graduate dean. Such students will generally be required to take specified undergraduate and/or foundation courses, which will not count toward the master's degree.

## Graduate Faculty

**Abdurrahman Arslanyilmaz**, Ph.D., Associate Professor  
Computer-based learning design; hazard detection in traffic simulation; computer-based and case-based learning

**Alina Lazar**, Ph.D., Professor  
Applied machine learning; database mining; agent-based simulations, and parallel programming

**Bonita Sharif**, Ph.D., Associate Professor  
Software engineering; program comprehension; software visualization and evolution; empirical assessment of software artifacts; UML class diagram layout techniques and quality measurement; eye-tracking evaluation of software artifacts; eye-tracking software traceability; mining software repositories

**John R. Sullins**, Ph.D., Associate Professor  
Artificial intelligence; game design; neural networks and expert systems

**Feng Yu**, Ph.D., Assistant Professor  
NoSQL databases; big data systems; cloud computing

**Yong Zhang**, Ph.D., Associate Professor  
Computer vision; image processing; biometrics; object detection and recognition; medical imaging

A minimum of 34 approved semester hours of credit (at least half of which must be at the 6900 level) is required for the Master of Computing and Information Systems.

## Thesis Option

COURSE	TITLE	S.H.
<b>Core</b>		
At least half of the semester hours must be at the 6900 level		
CSCI 6901	Principles of Computer Programming	3
CSCI 6920	Theory and Practice of Information Systems	3
CSCI 6950	Advanced Database Design and Administration	3
CSCI 6997	Seminar in Computer and Information Systems (take in the first semester if possible but no later than the second semester)	1
Select one of the following:		3
CSCI 6921	Strategic Project and Change Planning	
CSCI 6940	Advanced Network Design and Administration	
CSCI 6951	Data Warehousing and Data Mining	
<b>Electives</b>		
Select a minimum of 15 s.h. of electives consisting of approved graduate and/or swing courses. Up to 9 s.h. may be taken in departments other than Computer Science and Information Systems.		
<b>Thesis</b>		
CSCI 6999	Thesis	6
<b>Total Semester Hours</b>		<b>34</b>

## Non-Thesis Option

COURSE	TITLE	S.H.
<b>Core</b>		
At least half of the semester hours must be at the 6900 level		
CSCI 6901	Principles of Computer Programming	3
CSCI 6920	Theory and Practice of Information Systems	3
CSCI 6950	Advanced Database Design and Administration	3
CSCI 6997	Seminar in Computer and Information Systems (take in the first semester if possible but no later than the second semester)	1
Select one of the following:		3
CSCI 6921	Strategic Project and Change Planning	
CSCI 6940	Advanced Network Design and Administration	
CSCI 6951	Data Warehousing and Data Mining	
<b>Electives</b>		
Select a minimum of 18 s.h. of electives consisting of approved graduate and/or swing courses. Up to 9 s.h. may be taken in departments other than Computer Science and Information Systems.		
<b>Capstone Project</b>		
This project is meant to explore and apply some area of computing and information systems and is subject to the approval of the major advisor.		
CSCI 6990	Computer Science Project	3
<b>Total Semester Hours</b>		<b>34</b>



The student's course of study will be determined in conjunction with the student's major advisor and, possibly, with an advisor from outside of the department, particularly if the student is interested in applying information systems to some other area. This course of study will be based on the student's area of specialization, background interests, and career interests. It may also include graduate courses from other areas where appropriate. A cohesive individual curriculum program of approved elective courses will be developed in conjunction with the student's major advisor after nine semester hours of core courses have been completed. Prior approval to carry more than 12 credit hours in any one semester must be obtained from the student's major advisor and the Dean of Graduate Studies.

## Learning Outcomes

The Master of Computing and Information systems program provides preparation for students to

- design a large-scale information system to meet the goals of an organization, encompassing software, databases, networks, and people.
- analyze the design, implementation, and maintenance of databases within a large organization.
- compile knowledge in crucial areas of information systems, such as data mining, advanced network design, and project management.
- design components and evaluate decisions related to information systems that interact with the outside world, including networking, security, and client-server web design
- design, and implement a significant component of a large-scale information system

## Graduate Courses

### CSCI 5801 Software Engineering 3 s.h.

Developing and maintaining complex software systems. Process and life-cycle models, and tools for software development (such as CASE). Specification methods, prototyping, validation and verification strategies, and version maintenance. Management of the system development process. A group project is required.

**Prereq.:** CSIS 3701.

### CSCI 5802 Software Tools and Practices 3 s.h.

A course that focuses on the different tools and techniques that software engineers typically use while developing software. Topics include current software engineering tools and practices, software testing, software architecture, version control systems, build and make systems, debuggers, static analysis tools, dynamic analysis tools, and design patterns. Students gain experience in multiple environments (Windows and a UNIX-based environment).

**Prereq.:** Junior standing and CSIS 3700 or CSCI 6901.

### CSCI 5806 Operating Systems 3 s.h.

Study of the various components of operating systems including kernels and monitors, currency and parallel processing, processor management, storage management, device management, I/O processing and file management.

**Prereq.:** CSIS 3700 and CSIS 3740.

### CSCI 5807 Compiler Design 3 s.h.

Study of compiler design and construction, including context-free languages, lexical analysis, parsing, code generation and optimization.

**Prereq.:** CSIS 3700 and CSIS 3740, CSCI 3710.

### CSCI 5814 Computer Architecture 3 s.h.

Study of high-performance sequential computer architecture. Topics include performance evaluation, instruction set design, processor implementation techniques, pipelining, vector processing, memory hierarchy design, and parallel architecture.

**Prereq.:** CSIS 3700 and CSIS 3740.

### CSCI 5820 Simulation 3 s.h.

Methods for modeling discrete event systems by algorithmic approaches using simulation languages.

**Prereq.:** CSIS 3700 and STAT 3743.

### CSCI 5822 Database Design and Information Retrieval 3 s.h.

Study of physical database storage, relational and object data modeling, logical database design (normalization process), and structural query languages.

**Prereq.:** CSIS 3700 and CSCI 3710.

### CSCI 5823 Communication Networks 3 s.h.

Study of network structures and topologies, international standards, models, communication media and protocols, hardware and software.

**Prereq.:** CSIS 3700 and either CSIS 3723 or CSIS 3740.

### CSCI 5835 Artificial Intelligence 3 s.h.

Study of the theory and applications of intelligent systems. Topics may include general problem-solving techniques, knowledge representation and expert systems, vision and perception, and natural language processing. AI systems and languages.

**Prereq.:** CSIS 3700 and CSCI 3710.

### CSCI 5840 Theory of Finite Automata 3 s.h.

The structural and behavioral aspects of finite automata.

**Prereq.:** CSCI 3710 and MATH 3720.

### CSCI 5857 Encoding and Encryption 3 s.h.

Securing computer and information systems through encoding and/or encryption. Private and public cryptographic methods, digital certificates and signatures, cryptovvariable techniques, key management, and database security issues.

**Prereq.:** CSIS 1560 or CSIS 2610; MATH 1552, MATH 1570 or MATH 1571 or Math Placement Test of 4 or 40 or higher; and at least 3 s.h. of upper-division departmental courses.

### CSCI 5860 Programming Language Structures 3 s.h.

Systematic approach to the study of the structures of programming languages. Formal descriptions, syntax, semantics and technical characteristics.

**Prereq.:** CSIS 3701 and CSCI 3710.

### CSCI 5870 Data Structures and Algorithms 3 s.h.

Study and application of analysis and design techniques to nonnumerical algorithms. Topics selected from algorithms acting on sets, trees, graphs; memory management; notions of complexity and related areas.

**Prereq.:** CSIS 3700 and CSCI 3710.

### CSCI 5881 Microcomputer System Architecture 3 s.h.

State-of-the-art course on microcomputer architecture. Topics include introduction to microcomputer systems, 16 and 32 bit microprocessors, direct memory access and other I/O transfer schemes, architecture of I/O processors, introduction to computer communications.

**Prereq.:** CSIS 3740 and CSCI 3780.

### CSCI 5895 Special Topics 2-4 s.h.

A study of special topics in computer science. Subject matter and credit hours will be announced in advance. May be repeated multiple times if topic is different.

**Prereq.:** At least 3 s.h. of upper-division departmental courses, and permission of chair.

### CSCI 6900 Computing Information System Workshop 1-3 s.h.

Intensive study and activity in a topic related to computing and information systems. May be repeated. Grading is S/U.

**Prereq.:** permission of graduate coordinator.

### CSCI 6901 Principles of Computer Programming 3 s.h.

Significant features of several computer programming languages to fit the needs of graduate students with no previous computer science experience. Programming techniques and problem analysis. Students will do programming projects appropriate for their needs.

**CSCI 6905 Information Structures 3 s.h.**

Basic concepts of information: modeling structures, machine level implementation, storage management, programming, language implementation, run-time structures, sorting, and searching.

**Prereq.:** CSCI 3710 and CSIS 3740, or permission of chair.

**CSCI 6910 Computer Software Systems 3 s.h.**

Classes of software systems, system structures, systems operations. Resource management routines. Software design.

**Prereq.:** CSCI 6905 or equivalent.

**CSCI 6915 Computer Organization Architecture 3 s.h.**

Organization and architectural design of the subsystems and major functional units of modern digital computers and their interconnections.

**Prereq.:** CSCI 6905 or equivalent.

**CSCI 6920 Theory and Practice of Information Systems 3 s.h.**

A study of the relationship of information systems to individuals, organizations, and society. A detailed study of the principles, methodologies, and issues associated with designing, implementing, and administering information systems as a resource in a networked, data-driven organization.

**Prereq.:** CSIS 3722 and CSIS 3723.

**CSCI 6921 Strategic Project and Change Planning 3 s.h.**

Information technology control, including organizational effects through methods, control techniques, and project tools. Cases provide domestic and international experience via initialization, planning, execution, tracking, and risk assessment. Time, reporting, resources, project relevance, organizational impact, and operational consistency are addressed through anticipatory, reactive, and crisis approaches.

**Prereq.:** CSCI 6920.

**CSCI 6930 Formal Languages and Syntactic Analysis 3 s.h.**

Study of formal languages, especially context-free languages, and their applications to parsing and syntactic analysis.

**Prereq.:** CSCI 3710 or CSCI 6905.

**CSCI 6940 Advanced Network Design and Administration 3 s.h.**

Advanced network design, implementation, and administration. Topics include infrastructure and architecture, VLSM, logical and physical designs, security issues, voice over IP, client/server networks, and VLANs.

**Prereq.:** CSIS 3723 or CSIS 3783.

**CSCI 6950 Advanced Database Design and Administration 3 s.h.**

Advanced concepts in database design, development, and administration. Database query languages, transactions, and data warehousing. Relational calculus. System analysis; concurrency; backup and recovery, and security issues; advanced models, including distributed, object-oriented, and online databases.

**Prereq.:** CSIS 3722 or equivalent.

**CSCI 6951 Data Warehousing and Data Mining 3 s.h.**

Basic methodology for planning, designing, building, using, and managing a data warehouse. Legacy systems, operational data stores, and data marts. Data mining techniques for visualization and deriving information from a data warehouse for strategic decision making.

**Prereq.:** CSIS 3722.

**CSCI 6961 Client-Side Web Development and Programming 3 s.h.**

Design and development of interactive, multimedia webpages. Effective uses of forms, graphics, and animation. Client-side programming tools, such as dynamic HTML, document object model, and JavaScript for graphics and form validation. Storyboarding techniques and user interface design principles.

**Prereq.:** CSIS 2617 or CSCI 6901.

**CSCI 6962 Server-Side Web Development and Programming 3 s.h.**

Configuration of web server software and the use of server-side programming. Server-side scripting in languages such as PHP and JavaServer Pages. Database access and drivers. Security issues, including access control and secured transmissions.

**Prereq.:** CSIS 3722 and either CSIS 3700 or CSCI 6901.

**CSCI 6970 Biometrics 3 s.h.**

Biometrics is an emerging and fast growing field that has found applications in a wide range of areas. This course will introduce major biometric techniques (face, fingerprint, voice and iris), focusing on the methods that have roots in computer vision, image processing, pattern recognition and machine learning. The course is designed to be project oriented. Student can choose a topic and develop it into a full project. Students who are interested in writing C++ codes and doing tests with OpenCV libraries are particularly encouraged to do so.

**Prereq.:** CSIS 3700 or CSCI 6901.

**CSCI 6971 Cloud Computing and Big Data 3 s.h.**

The objective of this course is to provide an introduction of cloud computing and big data, including the background knowledge and embracing technologies. This course addresses the latest advances in hardware and software, cluster architecture, programming paradigms that emphasize in system performance, scalability, security, and energy efficiency. We also include hands-on experiences for students to practice on building, managing, and programming on contemporary cloud and big data systems. Research directions in cloud and big data will be introduced for graduate level study.

**Prereq.:** CSIS 3700 or CSCI 6901.

**CSCI 6990 Computer Science Project 1-3 s.h.**

Report and discussion of individual topics or research projects in computer science.

**Prereq.:** Nine semester hours of computer science courses numbered above 5000.

**CSCI 6993 Computing and Information Systems Graduate Internship 1-3 s.h.**

An industrial/academic experience in information systems/technology. Employment for 15 to 20 hours per week. May be repeated once with the permission of graduate internship supervisor.

**Prereq.:** CSCI 6920 and permission of graduate internship supervisor.

**CSCI 6995 Special Topics in Computer Science 1-4 s.h.**

Special topics in computer science selected by the staff.

**Prereq.:** Permission of chair.

**CSCI 6996 Independent Study 1-4 s.h.**

Study under the supervision of a faculty member.

**Prereq.:** Permission of chair.

**CSCI 6997 Seminar in Computer and Information Systems 1 s.h.**

Overview of research methods and presentation techniques (written and oral) for advanced work in computer science and information systems. Will include presentations of current student/faculty research. Students will be required to deliver at least one conference-style presentation of their own in an area related to their research.

**CSCI 6999 Thesis 3-6 s.h.**

A student may register for six semester hours in one semester or for three semester hours in each of two semesters.

**CSIS 5824 Applied Artificial Intelligence 3 s.h.**

Study of artificial intelligence software related to decision making. Topics may include robotic control, expert systems, automated knowledge acquisition, or logic programming.

**Prereq.:** CSIS 3700 and 3 s.h. of upper-division departmental courses, or CSIS 6901.

**CSIS 5828 Computer Network Security 3 s.h.**

Overview of security issues that arise from computer networks, including the spectrum of security activities, methods, methodologies, and procedures. Intrusion detection, firewalls, threats and vulnerabilities, denial of service attacks, viruses and worms, encryption, and forensics.

**Prereq.:** CSIS 3723 or equivalent.

**CSIS 5837 Artificial Intelligence in Game Design 3 s.h.**

Artificial intelligence techniques for designing and programming intelligent non-player characters for a variety of different types of game genres. Finite and fuzzy state machines, terrain analysis and path planning, board games, language understanding, and learning.

**Prereq.:** CSIS 3700, CSIS 3726 or CSCI 6901.

**CSIS 5838 Graphics and Animation for Gaming 3 s.h.**

Design and implementation of animated characters in 3D computer games. Surface creation and effects; skeletal and facial rigging; motion and animation; basic game physics. Use of 3D animation software and scripting languages for game engine programming.

**Prereq.:** CSIS 2605 or CSIS 2610 and at least 3 s.h. of upper division CSIS courses, or CSCI 6901.

**CSIS 5883 Remote Access and Multilayer Switched Networks 4 s.h.**

Advanced WAN connectivity, including Frame Relay, ATM, ISDN, DSL, and modems; IP address scaling techniques; advanced access control; core issues in network design and management, focusing on multilayer switched networks and emerging multi-service networks. Will incorporate CCNP Cisco Academy curriculum. Three hours lecture, three hours lab.

**Prereq.:** CSIS 3783.

**CSIS 5884 Building Scalable Networks and Advanced Internetwork Troubleshooting 4 s.h.**

Designing scalable networks; advanced routing protocols; VLSM and route aggregation; management and diagnostic tools; troubleshooting tools and methodology for TCP/IP, Novell, and AppleTalk connectivity, VLANs, routers, and switches; Frame Relay and ISDN connectivity. Will incorporate CCNP Cisco Academy curriculum. Three hours lecture, three hours lab.

**Prereq.:** CSIS 3783.

# Master of Education in Intervention Services

## Introduction

The school psychology program is housed in the Beeghly College of Education. Students who successfully complete 45 credit hours of coursework are awarded the Master of Education (M.Ed.) degree in Intervention Services. An additional 54 credit hours are required for the awarding of the Educational Specialist (Ed.S.) degree in School Psychology. Candidates must also pass the PRAXIS II examination in school psychology for licensure in the State of Ohio and for certification by the National Association of School Psychologists (NASP). (Please note the following are required for admission to the Educational Specialist degree: Successful completion of the YSU M.Ed. in Intervention Services, demonstration of successful skills as evidenced by grades and disposition ratings throughout the program, and a successful Ed.S. admissions interview.)

The program provides a curriculum that is comprehensive, integrated, and sequential. It follows the school psychology standards set forth by the State of Ohio, NASP, and the Council for the Accreditation of Education Preparation (CAEP). Courses reflect current advances in the field of school psychology and education. In addition, the program has a unique emphasis in low incidence disabilities. The program is committed to implementing and integrating the most current technology.

The school psychology program is structured so that course content is accompanied by appropriate field experiences. Practicum experiences are designed to provide students with opportunities to practice skills that are required in professional practice while under direct supervision. Practicum experiences occur in conjunction with specific courses and are individualized in terms of setting and assignment to a field supervisor.

Full-time study in school psychology (M.Ed and Ed.S.) generally constitutes a three-year sequence. To develop the needed specific competencies and to meet the training goals of the YSU school psychology program, candidates during the first year of study complete coursework in counseling, educational, and psychological foundations at the master's level. The first year includes 100 practicum hours and provides candidates with experiences related to a variety of low and high incidence disabilities. Upon successful completion of year one requirements, candidates will graduate with a Master of Education in Intervention Services.

For more information about the Department of Counseling, School Psychology and Educational Leadership, contact the Department Office at 330-941-3257 or visit our Department website (<http://catalog.yzu.edu/undergraduate/colleges-programs/college-education/department-counseling-special-education-school-psychology>).

## Welcome

Our program is designed to prepare graduates with the necessary knowledge, skills, and dispositions to serve our community. Youngstown State University offers a Master of Education in Intervention Services as the initial degree required for admission to the Educational Specialist in School Psychology program. The School Psychology program at YSU enrolled its first class of candidates in 2012 and graduated its first class of School Psychologists in August 2015. This is the first new degree program in Ohio dedicated to the preparation of school psychologist in over four decades. Master's students will find a unique educational experience that prepares them for study in School Psychology. I encourage you to review the website and to contact the program director below.

Jake J. Protivnak, Ph.D.

Chair / Professor

Department of Counseling, School Psychology and Educational Leadership  
(330) 941-1936

[jjprotivnak@ysu.edu](mailto:jjprotivnak@ysu.edu)

## Program Director

For specific questions about the Master of Education in Intervention Services and the School Psychology program, please contact the program director:

Richard W. VanVoorhis, D.Ed., NCSP, Associate Professor

3212 Beeghly College of Education

(330) 941-3266

[rwvanvoorhis@ysu.edu](mailto:rwvanvoorhis@ysu.edu)

## Accreditation

An application for the initial National Association of School Psychologists (NASP) approval will be submitted during Fall 2017. Programs must first complete a three year cycle producing graduates before application may be made for full NASP approval.

## Admission Requirements

A set of specific criteria must be met before the applicant can be officially accepted as a candidate for a YSU graduate degree in school psychology. Undergraduate/graduate coursework, grade point average, relevant work experience, letters of recommendation and personal maturity are considerations for entrance into the program. To begin the application process, prospective candidates should contact Dr. Richard Van Voorhis, Graduate Program Director.

The Youngstown State University school psychology program is a cohort-based program and will accept students on a full-time time basis. The first year of the program commences during the summer. The requirements for applying to the YSU School Psychology program are:

- A baccalaureate degree from a regionally accredited university or college
- Minimum undergraduate cumulative GPA of at least 3.0 or better on a 4.0 scale
- Graduate Record Examination (GRE) results (Verbal and Quantitative, Analytical Writing)
- Three letters of recommendation
- Official transcripts from all previously attended institutions
- A "Position Paper" describing

- Motivation and reasons for selecting the field of school psychology
- Aspirations following the receipt of the graduate degree in school psychology
- Personal qualities which relate to success as a graduate student and school psychologist.
- Minimum of 9 semester hours of undergraduate or graduate work in school psychology related coursework (psychology, education, special education, social work, counseling, or other as determined by the admission committee) with a grade of "B" or better
- Completion of a Good Moral Character statement which reflects no criminal convictions which may impact your ability to work in educational settings
- An interview is the last step in the application process. Completed applications will be reviewed by the selection/admission committee to select individuals for interview. The process is competitive and meeting eligibility criteria does not assure admission into the program.
- Application Deadline: February 1st

## Graduate Faculty

**Kathleen Aspiranti**, Ph.D., Assistant Professor

School-based behavioral and academic interventions; response to intervention; autism spectrum disorders; curriculum-based measurements in reading

**Carrie R. Jackson**, D.Ed., Assistant Professor

Applied behavior analysis; autism spectrum disorders; neuropsychology; transition planning/vocational assessment

**Richard W. VanVoorhis**, D.Ed., Associate Professor

Role and function of school psychologists; career development and counseling topics; special education service delivery; low incidence disabilities; assessment and identification issues

Successful completion of the following 45 credit semester hours and successful completion of comprehensive examination (capstone experience)

Required courses for the M.Ed. in Intervention Services are as follows:

COURSE	TITLE	S.H.
<b>Required Courses</b>		
SPSY 6901	System-Wide Consultation/Collaboration in the Schools	3
SPSY 6909	Assessment and Intervention for Students with Low Incidence Disabilities	3
SPSY 6912	Multilevel Tier Interventions Across General Education and Special Education Programming	3
COUN 6962	Counseling Theory	3
COUN 6973 & 6973L	Group Counseling Theory and Practice and Group Counseling Laboratory	3
SPSY 6904	Crisis Counseling	3
PSYC 6905	Human Growth and Development	3
PSYC 6955	Psychopathology	2
SPSY 6902	School Organization, Classroom Analysis, Cross-Categorical Settings	3
SPSY 6905	Cultural/Ethnic Issues Relating to Youth and Families	3
FOUN 6904	Introduction to Educational Research	3
FOUN 6914	Statistical Methods in Education	3
SPSY 6906	Role and Function of a School Psychologist	3
COUN 6900	Counseling Methods and Practice	3
<b>Capstone Experience</b>		
SPSY 6907	Comprehensive Readings in School Psychology	3
<b>Total Semester Hours</b>		<b>44</b>

## Learning Outcomes

1. Candidates will be well prepared to serve all children /students and their families including those diagnosed with high and low incidence disabilities.
2. Candidates will reflect professional practices that demonstrate respect for human diversity and promote effective services, advocacy, and social justice for all children and families.
3. Candidates will demonstrate the educational foundations of school psychology including the organization and operation of general, special education plus instructional and remedial techniques.
4. Candidates will obtain theoretical and practical knowledge, skills and experiences related to developing appropriate mental health strategies with children, families, and groups.
5. Candidates will demonstrate an understanding of basic statistical and research methodologies as applied to research in the schools.
6. Candidates will understand the historical, current, legal and ethical issues, alternative models of delivery, emergent technologies, and knowledge of the school psychologist's role and function.

## Graduate Courses

### SPSY 5965 School of Psychology Workshop - Special Topics 1-5 s.h.

Selected topics related to intervention and current interest in the school of psychology field of study. Grading is S/U.

### SPSY 6901 System-Wide Consultation/Collaboration in the Schools 3 s.h.

Current educational practices have made collaboration an essential way education professionals do their work. This course will cover the theoretical bases and consultation/collaboration skills necessary for affecting change in the educational environment from a system wide perspective. The aim of this course is to prepare Intervention Services students to function as collaborative consultants promoting systematic and planned strategies for use within the public schools and with families with children with disabilities.

### SPSY 6902 School Organization, Classroom Analysis, Cross-Categorical Settings 3 s.h.

Provides students in the school psychology program with the opportunity to observe and participate in educational regular education (K-12) and special education settings (SLD, CD, ED, MH, Autistic clinics, for B-21 years of age) in order to understand the organization of educational institutions they will ultimately serve as well as student population characteristics to understand the organization of educational institutions they will ultimately serve.

### SPSY 6904 Crisis Counseling 3 s.h.

An overview of the professional concerns and issues school psychologists face working in public school systems. Orientation and preparation for the supervised internship experience will be discussed; future responsibilities as a professional and staff consultant. Legal and ethical issues pertaining to the role of a school psychologist will be reviewed.

### SPSY 6905 Cultural/Ethnic Issues Relating to Youth and Families 3 s.h.

Introduces pertinent theoretical cultural issues which relate to mental health professionals as they work with diversified populations. In particular, therapeutic skill enhancement of professionals will be advanced, since all counseling may be seen as cross-cultural. Group work and experiential exercises will provide an avenue for the professional and personal cultural growth of each participant. The goal is to also enhance participant's level of cultural sensitivity.

### SPSY 6906 Role and Function of a School Psychologist 3 s.h.

An overview of the professional concerns and issues school psychologists face working in public school systems. Orientation for a supervised internship experience will be discussed; future responsibilities as a professional and staff consultant. Historical, legal and ethical issues pertaining to the role of a school psychologist will be reviewed.

### SPSY 6907 Comprehensive Readings in School Psychology 3 s.h.

Provides supervised readings and class discussions in preparation for the master's comprehensive examination.

**SPSY 6909 Assessment and Intervention for Students with Low Incidence Disabilities 3 s.h.**

Emphasis will be on current most effective practices of the professional collaboration process across three tiers of service to include specific models and strategies for students in general education and especially those with autism and/or a low incidence disability. Candidates will develop a team training model and will evaluate evidence-based practices.

**SPSY 6911 International Area Study: Project Learning Around the World 3 s.h.**

This course is designed to enhance mental health or teacher's professional and personal level of sensitivity and competence via introducing them to innovative and traditional forms of intervention or healing in community and school settings in a developing country. Students will participate in philanthropic activities by helping to gather and deliver educational supplies via Project Learning Around the World ([www.platw.org](http://www.platw.org)).

**SPSY 6912 Multilevel Tier Interventions Across General Education and Special Education Programming 3 s.h.**

Direct experiences in planned multilevel interventions across the three tiers of services within educational school systems for regular education and children with disabilities. Participation in RTI team meetings, curriculum academic and applied and functional behavioral analysis, progress monitoring, goal attainment scaling and determining effectiveness of intervention plans will be introduced.

**SPSY 7500 Dynamic Assessment 1 3 s.h.**

This course is designed for the school psychology student and includes the administration and interpretation of intelligence tests. The goal of this course is to provide students with a series of experiences which will lead to student mastery in the administration, scoring, and interpretation of various cognitive instruments and one achievement test.

**Concurrent:** SPSY 7501 and SPSY 7502.

**SPSY 7501 Dynamic Assessment Practicum in School Psychology 1 3 s.h.**

Supervised experience in the administration and scoring of cognitive assessment protocols and demonstration of behavioral observation recording.

**Concurrent:** SPSY 7500 and SPSY 7502.

**SPSY 7502 Cognitive Observation Practicum 2 s.h.**

Supervised experience in the administration of various psychological instruments.

**Prereq.:** SPSY 7500 and SPSY 7501 concurrently.

**SPSY 7503 Dynamic Assessment 2 3 s.h.**

This course is designed to provide school psychology candidates with a theoretical foundation and the attainment of assessment skills in the areas of achievement, perceptual-motor, receptive, expressive, written language skills, behavioral, self-concept, emotional, developmental history and adaptive behavior assessment.

**Prereq.:** Candidates must have obtained a "B" or better and reached competence in SPSY 7500, SPSY 7501, and SPSY 7502.

**Concurrent:** SPSY 7504 and SPSY 7505.

**SPSY 7504 Dynamic Assessment Child Study Practicum 2 3 s.h.**

Candidates are provided supervised practicum experience utilizing a systematic, ecological approach to child study.

**Prereq.:** Candidates must have obtained a "B" or better and reached competence in SPSY 7500, SPSY 7501, and SPSY 7502.

**Concurrent:** SPSY 7503 and SPSY 7505.

**SPSY 7505 Dynamic Assessment Advanced Child Study Practicum 3 3 s.h.**

Candidates are provided with advanced supervised practicum experiences in school systems in the area of child study.

**Prereq.:** Candidates must have obtained a "B" or better and reached competence in SPSY 7500, SPSY 7501, and SPSY 7502.

**Concurrent:** SPSY 7503 and SPSY 7504.

**SPSY 7506 Consultation Approaches to Treatment in Schools 3 s.h.**

This course presents assessment procedures for ecological contexts and client needs within school contexts.

**Concurrent:** SPSY 7507.

**SPSY 7507 Classroom Assessment and Decision Making 3 s.h.**

The purpose of this course is to analyze and assess problems related to classroom learning environments, to plan programs to enhance environments, and to implement as well as evaluate plans. The aim of this course is to prepare school psychology students to function effectively within public school classrooms by applying various consultation models.

**Concurrent:** SPSY 7506.

**SPSY 7508 Neuropsychology, Low Incidence and Learning Behavior 3 s.h.**

This course is designed to provide the basics of neuroanatomy, specifically, in terms of brain organization and neurological development.

**Prereq.:** SPSY 7500, SPSY 7501, and SPSY 7502.

**SPSY 7509 Family Systems Within an Educational Context 3 s.h.**

The focus of the didactic and experiential course will be on identifying patterns of children's symptoms, repositioning of the therapist within the educational system context and learning of various therapeutic techniques to use with families of children with disabilities or other mental health issues.

**SPSY 7510 Professional Development Seminar in School Psychology 1 s.h.**

This course is designed to prepare and ready school psychology candidates for their proposed internship assignment.

**SPSY 7511 School Psychology Internship Studies 3 s.h.**

Supervised readings and class discussions in preparation for a 1400-clock-hour internship in school psychology.

**SPSY 7512 Internship/Supervised Experience 1 6 s.h.**

Designed for those candidates who have been assigned a 1400-clock-hour internship in the state of Ohio under field and university supervision. 6 s.h. 6 s.h.

**SPSY 7513 Internship/Supervised Experience 2 6 s.h.**

Designed for those candidates who have been assigned a 1400-clock-hour internship in the state of Ohio under field and university supervision. 6 s.h. 6 s.h.

**SPSY 7514 Internship/Supervised Experience 3 3 s.h.**

Designed for those candidates who have been assigned a 1400-clock-hour internship in the state of Ohio under field and university supervision. 6 s.h. 6 s.h.

**SPSY 7515 Advanced Seminar in School Psychology 1 3 s.h.**

First of two-semester seminars (special topics related to school psychology internship, child study, serving low incidence populations, consultation, RTI and other topics related to the internship experience).

**Prereq.:** concurrent with SPSY 7512.

**SPSY 7516 Advanced Seminar in School Psychology 2 3 s.h.**

Second of two-semester seminars (special topics related to school psychology internship, child study, serving low incidence populations, consultation, RTI and other topics related to the internship experience).

**Prereq.:** concurrent with SPSY 7513.

## Master of Fine Arts in Creative Writing

**Campus Coordinator**

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**NEOMFA Director**

Steve Reese  
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## Program Description

The Master of Fine Arts program at Youngstown State University is part of the Northeast Ohio Universities Master of Fine Arts (NEOMFA) in Creative Writing. The NEOMFA is a multidisciplinary, interdepartmental, and interinstitutional program that provides opportunities for students to pursue the terminal degree in creative writing. The NEOMFA draws its faculty from departments at Youngstown State University, Cleveland State University, Kent State University, and The University of Akron.

This program offers workshops in poetry writing, fiction writing, creative nonfiction writing, and playwriting, as well as courses in literature, literary craft and theory, and professional writing and editing. The M.F.A. prepares graduates to pursue opportunities in arts management; in many areas of communication, publicity, and marketing; and in teaching creative writing, literature, and expository writing. Graduates of the program are ready to contribute to the literary life of the nation and the cultural life of the community. The program requires 48 semester hours of coursework.

## Advising

All students should have their schedules approved by a graduate faculty advisor every semester. After initial enrollment in the program, the student and his or her advisor will establish a coursework plan including alternate course selections. An advisor may be chosen from the faculty of any consortium school.

## Writer in the Community Certificate

The certificate option gives writers a background in community engagement that would multiply the availability of such avenues. The Certificate allows students who wish to pursue a more "practical" option while they are focusing on their creative writing. In a climate where the engagement between academia and community is more and more highly valued, the NEOMFA believes this is an ideal time to introduce this Certificate option into the program. The NEOMFA is already a unique program in being a consortium; the Certificate would only add to its distinctive character and make it more attractive to potential students.

## Admission Requirements

In addition to the minimum College of Graduate Studies admissions requirements, applicants must submit three letters of recommendation and a substantive portfolio of creative work that includes either 15 to 20 pages of poetry or 30 pages of fiction, creative nonfiction, or playwriting. All portfolios must include at least one finished work. All items in the portfolio should be double-spaced. The letters of recommendation should come from individuals familiar with the applicant's academic or professional background. The letters should include an assessment of the applicant's current work quality and ability to successfully complete graduate training. Application to the M.F.A. program authorizes staff members at participating institutions to have access to all student academic records and application materials.

The NEOMFA program accepts students for fall admission only.

## Graduate Faculty

**Christopher Barzak**, M.F.A., Professor  
Fiction writing; fiction; contemporary British and American literature

**Philip Sean Brady**, Ph.D., Professor  
Modern Irish literature; creative writing; modern world literature

**Steven Reese**, Ph.D., Professor  
Twentieth-century British literature; creative writing

All M.F.A. students must complete 48 semester hours in graduate-level courses. There are six areas of coursework in the M.F.A.:

COURSE	TITLE	S.H.
Writing Workshops		15
Craft and Theory courses		9
Literatures courses		6
Internship		3
Electives		9
Thesis		6
<b>Total Semester Hours</b>		<b>48</b>

The thesis must be submitted according to the general requirements established by the College of Graduate Studies. The student is required to defend the thesis in an oral presentation before a committee of graduate faculty from a minimum of two consortium schools.

## Writing in the Community Certificate

Course requirement for obtaining the certificate would be 4 classes, 12 credit hours, described below:

1. Teaching Creative Writing in the Community.  
This course will prepare students to apply their knowledge of creative writing and participate in a community-based teaching residency.
2. Writing in the Community Internship.  
For the practicum experience students will be placed in the community to teach creative writing for at least one contact hour per week for ten to fifteen weeks in a setting agreed upon by the students and the advisor.
3. Writing in the Community Paper.  
This is the only new course required by the Certificate (see attached Request for Graduate Curriculum Action). The culminating experience of the Writer in the Community Certificate is the Certificate Paper. The paper is to be a high quality, publishable paper of 20 to 25 pages and draw on practicum experience, research, and developed pedagogy of teaching writing in the community. Regular consultation with the advisor is required.
4. Professional Writing Elective.  
Students select a professional writing course, to be approved by an advisor, to further expand the connection between creative writing and organizational writing. At YSU, such courses would include the following: ENGL 6943, 6949, 6953

## Learning Outcomes

Students will create a high quality publishable work of poetry, fiction, creative non-fiction, play writing, and literary translation

Students will be able to critique literary works in a workshop environment

Students will have knowledge of a wide range of theories and practices of creative writing and the creative process

Students will have hands-on experiences in real-world writing and writing-related situations such as art agencies, public schools, and community centers

### ENGL 6900 Methods of Literary Research 3 s.h.

Basic concepts and methods of literary research and analysis.

### ENGL 6901 Methods of Composition Research 3 s.h.

Theories and methods of composition research; emphasis on strategies for conducting, analyzing, and writing about classroom and workplace studies.

### ENGL 6902 Literary Thought 3 s.h.

May focus on particular theoretical approaches or provide an overview of literary criticism. May be repeated once with a different topic.

### ENGL 6906 Teaching of Literature 3 s.h.

Problems, issues, practices, and research that affect the teaching of literature at various grade levels and in college courses.

**ENGL 6907 Teaching of Writing 3 s.h.**

Problems, issues, practices, and research that affect the teaching of writing at various grade levels and in college courses.

**ENGL 6911 The Medieval World 3 s.h.**

Study of selected literary works reflecting medieval thought and culture. May be repeated once with a different topic.

**ENGL 6912 Sixteenth- and 17th-Century British Studies 3 s.h.**

Non-dramatic literature of the British Renaissance. May be repeated once with a different topic.

**ENGL 6913 Shakespeare and Renaissance Drama 3 s.h.**

Varying emphases on the dramatic works of Shakespeare and/or his contemporaries. May be repeated once with a different topic.

**ENGL 6914 Restoration and 18th-Century British Studies 3 s.h.**

Prose, poetry, and/or drama of the period studied in historical and cultural context and from various critical perspectives. May be repeated once with a different topic.

**ENGL 6915 Early American Studies 3 s.h.**

Prose, poetry, and/or drama from the colonial period up to the early 19th century examined in their historical and cultural contexts. May be repeated once with a different topic.

**ENGL 6916 Nineteenth-Century British Studies 3 s.h.**

Prose, poetry, and/or drama of the period studied in historical and cultural context and from various critical perspectives. May be repeated once with a different topic.

**ENGL 6917 Nineteenth-Century American Studies 3 s.h.**

Examines 19th-century American literature and culture through particular themes, genres, styles, periods, and/or figures. May be repeated once with a different topic.

**ENGL 6918 Studies in Children's Literature 3 s.h.**

Contemporary children's literature. Emphasis may be on development, trends, critical standards, cultural context, classroom selection and use. May be repeated once with a different topic.

**ENGL 6919 Studies in Young Adult Literature 3 s.h.**

Contemporary young adult literature. Emphasis may be on development, trends, critical standards, cultural context, classroom selection and use. May be repeated once with a different topic.

**ENGL 6920 Twentieth-Century British Studies 3 s.h.**

Prose, poetry, and/or drama of the period studied in historical and cultural context and from various critical perspectives. May be repeated once with a different topic.

**ENGL 6922 Twentieth-Century American 3 s.h.**

Studies. Examines works in relation to the history and social and cultural developments of the period. Nonliterary texts may be included, such as film, visual arts, and music. May be repeated once with a different topic.

**ENGL 6923 Working Class Literature 3 s.h.**

A study of working-class literature, culture, and artistic production, with emphasis on the literary history, the material conditions, and the intersection of race, ethnicity, gender, and sexual orientation in the works of literature by and about the working class.

**ENGL 6927 Historical Survey of Literature for Young People 3 s.h.**

Survey of historical developments from the 18th through mid-20th centuries in British and American literature for young people.

**ENGL 6935 Studies in Romanticism 3 s.h.**

Prose, poetry, and/or drama of the period studied in historical and cultural context and from various critical perspectives. May be repeated once with a different topic.

**ENGL 6943 Technical Communication 3 s.h.**

In-depth discussion of audience, format, document design, and corporate structure. Focus on refining skills and providing theoretical support for practical applications.

**Prereq.:** ENGL 3743 Professional and Technical Communication and ENGL 4849 Professional and Technical Editing or ENGL 6949.

**ENGL 6944 Document Design and Production 3 s.h.**

Application of computer software and hardware to design and produce professional/technical documents.

**ENGL 6945 Theory of Professional and Technical Communication 3 s.h.**

Examines theory and research in professional and technical communication with emphasis on the application of theoretical concepts and empirical findings to practical problems in the field. Introduces students to theories and research methods through reading in current literature and through class research projects.

**ENGL 6946 Historical Editing 3 s.h.**

Project-based approach to theoretical and practical aspects of editing historical and literary documents for both print and digital contexts. Topics include document selection, transcription, verification, and annotation, as well as the implications for teaching and learning using traditional print and electronic archives and texts.

**Cross-listed:** HIST 6946.

**ENGL 6949 Professional and Technical Editing 3 s.h.**

A study of the skills needed to make appropriate changes in the content, grammar, mechanics, style, format, and organization of manuscripts for scholarly, trade, journalistic, and other professional publications. The course deals with stages in the publishing process, hard-copy versus online editing, mechanical and substantive editing, and the use of house and press styles.

**ENGL 6950 Sociolinguistics 3 s.h.**

An investigation of the relationship between language and society. Includes discussion of dialects and standard languages, language planning, linguistic identity, multi- and bilingualism, class, gender, ethnicity, and social interaction.

**ENGL 6951 Language Acquisition 3 s.h.**

A study of research on the learning of first and second languages. Topics include developmental sequences, learner variables, critical periods and conditions for learning, and the roles of input and interaction. The course is designed for those planning to teach languages.

**ENGL 6952 Linguistics of Literacy 3 s.h.**

An investigation of the linguistic, social, and cultural dimensions of literacy. The course covers theoretical frameworks of language and literacy, the relationship between speech and writing, cultural notions of literacy, and the acquisition of literacy in first and additional languages.

**ENGL 6953 Publications Issues and Management 3 s.h.**

Exploration of the issues involved in managing and producing professional publications, including publications in students' own fields. Focus on organizational, editorial, and authorial voice; editorial policies; audience analysis; and the processes by which publications are conceived, designed, and produced.

**ENGL 6955 Advanced Linguistics 3 s.h.**

In-depth study of selected issues in contemporary linguistic theory.

**ENGL 6956 TESOL Methods 3 s.h.**

Introduction to teaching English as a second language (ESL), including reading, writing, listening, and speaking. Focus will be on using communicative methods with nonnative speakers.

**ENGL 6957 TESOL Practicum 3 s.h.**

Supervised teaching in an English as a second language (ESL) program. Additionally, weekly seminar attendance is required.

**ENGL 6958 English Grammar 3 s.h.**

Descriptions and analysis of English grammar structure.

**ENGL 6960 Studies in Linguistics 3 s.h.**

Examines a specific topic such as stylistics, semantics, sociolinguistics, second language acquisition, TESOL, or computational linguistics. May be repeated twice with a different topic.

**ENGL 6963 Perspectives in Multicultural Studies 3 s.h.**

An advanced study of primary and secondary texts from the field of multicultural literature and multicultural education. The course will emphasize the formation of social identities, the intersections of race, class, and gender, relationships among dominant and nondominant subjects in U.S. and other global cultures. The course will pay special attention to the theory and application of multiculturalist paradigms to education, professional work, and graduate study. May be repeated once with a different topic.

**ENGL 6965 Studies in Film 3 s.h.**

Analysis of motion pictures and their creators; topics may include classic and contemporary styles, genres, and methods of production, as well as film theory and criticism. May be repeated once with a different topic.

**ENGL 6966 Writing of Poetry 3 s.h.**

Discussion and application of approaches, techniques, and forms involved in the writing of poetry. May be repeated once with a different topic.

**ENGL 6967 Writing of Prose 3 s.h.**

Discussion and application of approaches, techniques, and forms involved in the writing of fiction and/or nonfiction. May be repeated once with a different topic.

**ENGL 6968 Studies in Literary Form 3 s.h.**

Examines forms such as poetry, the novel, the short story, essay, biography, autobiography, or travel literature. Emphasis may be on definition, development, cultural context, figures, or themes. May be repeated once with a different topic.

**ENGL 6969 Writing the Youth Novel 3 s.h.**

Discussion and application of approaches, techniques, and forms involved in the writing of novels.

**ENGL 6974 English Education Workshop 1-3 s.h.**

Intensive study and activity in a topic related to teaching English and the language arts. Does not count toward degree credit. Grading is S/U. May be repeated.

**ENGL 6975 English Education Seminar 1-3 s.h.**

Approaches to teaching English and the language arts. May be repeated once with a different topic.

**ENGL 6976 Studies in English Education 3 s.h.**

Theories, issues, and/or criticism in the teaching of English. May be repeated once with a different topic.

**ENGL 6989 Teaching Practicum 1-3 s.h.**

Techniques and strategies for teaching college composition, including course design and classroom practice. Required of and limited to graduate assistants who are teaching in the English Department. First-year graduate assistants must register for three semester hours of Teaching Practicum in two successive semesters for a total of six semester hours. Does not count toward degree credit. Grading is S/U.

**ENGL 6990 Special Topics 3 s.h.**

May be repeated once.

**ENGL 6991 Special Topics MFA 3 s.h.**

Special topics in literature and creative writing for students in the Master of Fine Arts (MFA) program in creative writing. May be repeated once.

**Prereq.:** Acceptance in the MFA program.

**ENGL 6992 Professional Communication 3 s.h.**

Focus on a selected topic in technical writing or professional communication (e.g., proposal writing, science writing, computer documentation, nonfiction prose). May be repeated once with a different topic.

**ENGL 6993 Discourse Theory 3 s.h.**

Examination and discussion of contemporary theories of discourse analysis, with some attention to the history and development of rhetorical theory.

**ENGL 6997 English Internship 1-3 s.h.**

Supervised work-and-learning experience in English under the direction of an English Department faculty member and an employee of a participating firm. Ten to 20 hours a week of student time are expected. Enrollment is contingent upon the availability of internships. Students are selected on the basis of personal qualifications, including GPA, courses taken, recommendations, and an interview. Either ENGL 6997 or ENGL 6998 may count toward the degree, not both.

**ENGL 6998 Professional Writing Internship 1-3 s.h.**

Supervised work-and-learning experience in professional communication under the direction of a University faculty member and an employee of a participating firm. Ten to 20 hours a week of student time are expected. Enrollment is contingent upon the availability of internships. Students are selected on the basis of personal qualifications, including GPA, courses taken, recommendations, and an interview. Either ENGL 6997 or ENGL 6998 may count toward the degree-not both.

**ENGL 6999 Thesis 1-3 s.h.**

Thesis.

**Prereq.:** Thesis proposal accepted by departmental committee.

## Master of Fine Arts in Interdisciplinary Visual Arts Program Director

Christine McCullough, MFA

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330-941-1862

## Program Description

The Master of Fine Arts in Interdisciplinary Visual Arts is a two-year residency program with 60 semester credit hours, as required under the guidelines from the National Association of Schools of Art and Design (NASAD), the accrediting agency for art institutions of higher learning. The MFA in Interdisciplinary Visual Arts is unique in that it will require students to examine and integrate the methods, theory, skills and insights from two or more traditional or non-traditional visual arts with non-art coursework. The program is highly flexible to allow students unfettered access to the excellent faculty and resources within the Department of Art and provides the opportunity to connect with diverse faculty outside of the visual arts from the University at large. It fosters interdisciplinary activity, balanced integration of media, processes, and exploratory models of thinking and making. Engagement with disciplines and learning resources outside of Art & Design and within the local, national, and international community is expected and supported. The program is designed to cultivate the practice of interdisciplinarity: to promote different perspectives, methods, media and processes to creative problem solving. Drawing from the diverse expertise of an outstanding faculty, students in the MFA program are grounded in interdisciplinary theory and practice. They explore interdisciplinary exchanges that revolve around material study, concepts and critical dialog in a studio-based environment. Students explore and combine a variety of media that cross studio practices working individually and collaboratively with and across a range of traditional, analogue, and digital mediums and experimental formats infused with ideas and collaboration from disciplines outside of the visual arts. The primary goal of this program is to educate Interdisciplinary visual artists who have the potential to contribute to and move forward the dialogue of contemporary art in the 21st century.



## Application Deadline

Admission to the MFA program is granted for the fall semester only. The application deadline is April 1st.

## Admission Requirements

As the terminal degree in studio art, the MFA Program at YSU will provide an opportunity for advanced conceptual and technical development for qualified students wishing to pursue a professional career in contemporary studio art research and practice. Admission to the program will be highly competitive and selective. Successful applicants will have a superior academic background and a strong commitment to interdisciplinary practice. MFA students are expected to have a thorough understanding of the principles of form, proficiency in various mediums and technical skills as well as a fluency in language and discourse in the historic and contemporary contexts. Applicants must follow standard procedures and normal requirements for admission into YSU College of Graduate Studies. In addition to the Graduate Admission requirements, applicants are required to have the following:

- An undergraduate degree from a regionally accredited institution (i.e., BFA, BA or equivalent experience). The undergraduate degree need not be in Studio Art but the applicant must demonstrate the competence to undertake the challenges of MFA Studies in Visual Art.
- a minimum of 48 credit hours of undergraduate work in studio courses and 12 credit hours in art history courses (the normal course of study for a BFA or BA in Art)
- a minimum cumulative undergraduate grade point average of 3.0 on a 4.0 scale
- a portfolio of work (20 digital slides or equivalent) which shows technical and conceptual competency and demonstrates the commitment and potential necessary for growth and success in the program
- A statement of purpose/artist 's statement (500 to 700) words that specifically addresses your portfolio of work as well as your goals and interest in pursuing an MFA in Interdisciplinary Visual Art. Include mention of your current practice in relation to your proposed graduate study.
- a resume (no longer than two pages)
- three original letters of recommendation
- the graduate selection committee may require a personal interview of selected applicants

## Provisional Admission

*Provisional admission may be recommended if the applicant does not meet the minimum requirements. For example, if the overall undergraduate GPA is deficient (2.7 – 3.0) but the Studio Art GPA is 3.0 or higher or the portfolio of work is inadequate but suggests strong potential for success.*

*Students admitted provisionally must complete the requirements and deficiencies outlined in the letter of provisional admission within the specified timetable and must earn at least a 3.0 in the first semester (or 9 credit hours) of graduate work to continue in the program.*

The curriculum assumes adequate preparation for advanced work in studio art. Students who lack that preparation may be asked to take undergraduate level courses to successfully address any deficiencies in their technical or aesthetic training in order to change their admission status from provisional to regular. These courses will not count toward the requirements for the MFA degree.

**Samuel Adu-Poku**, Ph.D., Professor

Art education; curriculum development; multicultural education; teacher education

**Dragana Crnjak**, M.F.A., Associate Professor

Painting; narrative work; drawing

**Richard Helfrich**, M.F.A., Assistant Professor

Graphic and interactive design

**Missy McCormick**, M.F.A., Associate Professor

3D studies; ceramics

**Christine E. McCullough**, M.F.A., Professor

Painting; drawing

**Greg Moring**, M.F.A., Professor

3D studies; sculpture

**Jonathan Dana Sperry**, M.F.A., Associate Professor

Digital media

## Degree Requirements

Students will take courses based on the following plan:  
 Interdisciplinary Studio (Sculpture, ceramics, painting, drawing, photography, printmaking, mixed media, installation, digital and new media) 30 semester hours  
 MFA Seminar in Interdisciplinary Theory 9 semester hours  
 Strategies in Interdisciplinary Practice 6 semester hours  
 Electives (Graduate Interdisciplinary and/or Cross Disciplinary) 9 semester hours  
 MFA Thesis Project & Capstone Research 6 semester hours  
 Total 60 semester hours

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ART 6990	Interdisciplinary Studio	6
ART 6994	Strategies in Interdisciplinary Practice 1	3
ART 6996	Seminar in Interdisciplinary Theory 1	3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ART 6991	Interdisciplinary Studio 2	9
ART 6997	Seminar Interdisciplinary Theory 2	3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
ART 6992	Interdisciplinary Studio 3	6
ART 6995	Strategies in Interdisciplinary Practice 2	3
ART 6998	Seminar Interdisciplinary Theory 3	3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
ART 6993	Interdisciplinary Studio 4	9
ART 6999	MFA Thesis Project and Capstone Research	6
<b>Semester Hours</b>		<b>15</b>
<b>Total Semester Hours</b>		<b>60</b>

## Learning Outcomes

1. The ability to integrate interdisciplinary methods, theory, skills and insights with depth, breadth and professional competence as demonstrated by the production of a relevant body of work.
2. To cultivate and promote interdisciplinary models of hybrid thinking and artistic practice based on collaboration and diverse perspectives, methods, media and processes to solve complex and creative problems.
3. To gain a broad theoretical, historical and cultural understanding of contemporary art and the relationship of art to contemporary society.

4. The capacity to develop ideas and the ability to conduct meaningful research into various fields as necessary for the exploration and production of creative work.
5. The ability to write and speak articulately about personal artistic works and practice as well as other art and theoretical issues.
6. Develop an understanding of the pedagogy of teaching and other business practices as related to career opportunities in art.

## Graduate Courses

### ART 5840 Topics in Ancient Art 3 s.h.

The art and architecture of the ancient cultures of the Mediterranean region and the Near East. Topics vary by semester, and include Egypt, the Ancient Near East, Greece, and Rome. May be taken twice if content is different.

**Prereq.:** Junior standing.

### ART 5850 Topics in Painting and Drawing 3 s.h.

Selected topics in advanced painting and drawing. Specific content varies by semester and includes Landscape and Interiors; Portraiture; and Personal Narrative. May be repeated with a different topic for a total of three times.

**Prereq.:** ART 2650 or portfolio presentation and permission of instructor.

### ART 5860 Topics in Design 3 s.h.

Selected topics in graphic design including typography, layout and computer applications. May be repeated for a total of three times with different topics.

**Prereq.:** Permission of instructor and portfolio.

### ART 5881 Twentieth Century Art to 1960 3 s.h.

A survey of the visual arts history of the 20th century beginning with its 19th century roots. The influential artists, movements, and motivating theories will be covered against a backdrop of world events. Primary emphasis is placed upon French Impressionism, German Expressionism, Fauvism, Surrealism, and American Abstract Expressionism.

**Prereq.:** ART 1542 or permission of instructor.

### ART 5882 Twentieth Century Art from 1960 3 s.h.

A survey of the visual arts history of the late 20th century beginning with those ideas and trends which followed Abstract Expressionism. Beginning with the late 1950s every principle artistic movement from Pop through post-Modernism will be explored against a backdrop of Post-War world events.

**Prereq.:** ART 1542 or permission of instructor.

### ART 6910 Studio Problems in Sculpture 1-3 s.h.

Individual research of the technical, visual, conceptual, and aesthetic issues of contemporary sculpture. Professional studio practices are explored as well as conceptual art issues dealing with non-traditional formats, idea-oriented artworks and the notion of 'research,' and the blending of theoretical and material practice. Students develop a self-critical, articulate, and individual approach to solving aesthetic solutions to self-determined visual narratives and challenges. Repeatable for a maximum of six s.h.

**Prereq.:** Permission of instructor.

### ART 6911 Studio Problems in Sculpture 1-3 s.h.

Emphasis on building on ideas researched in ART 6910 to develop greater conceptual, aesthetic, and technical sophistication. Directed readings and writing assignments in addition to professional studio practice are used to promote further development of individual approaches to solving aesthetic solutions to self-determined visual narratives and challenges. May be repeated for a maximum of six s.h.

**Prereq.:** ART 6910.

### ART 6912 Studio Problems in Sculpture 1-3 s.h.

Students engage in the final phase of conceptual and technical refinement that will result in a cohesive body of work that demonstrates their conceptual direction and technical proficiency. Studio practice together with intense analytical discourse of current studio work and exhibition thesis drafts prepare students for the visual, written, and oral defense components of their ART 6924 capstone course experience. May be repeated for a maximum of 6 s.h.

**Prereq.:** ART 6911.

### ART 6920 Historical and Philosophical Foundations of Art Education 3 s.h.

Evaluation of the historical, chronological, and philosophical developments in art education with emphasis on significant trends and movements which have impacted its growth and structure.

**Prereq.:** Graduate status.

### ART 6921 Current Issues, Perspectives, and Curriculum Practices in Art Education 3 s.h.

A survey of current issues and legislative mandates that affect art education curriculum. Students will gain insight into curriculum development, implementation, and evaluation of art education programs.

**Prereq.:** Graduate status.

### ART 6922 Graduate Seminar in Art Education 3 s.h.

Explores contemporary events, theories, issues, trends, and practices that are influencing the field of art education.

**Prereq.:** Graduate status.

### ART 6923 Graduate Art Thesis 1-5 s.h.

Students will develop a thesis in one of three modes: scholarly thesis, studio inquiry and essay, or teaching project and report. Repeatable for up to 5 total semester hours.

**Prereq.:** Graduate status.

### ART 6924 Graduate Studio Project and Exhibition 1-5 s.h.

A professional art exhibition and written artist statement as an exit requirement and an alternative to the graduate research thesis option. Activities will include design and production of artworks for exhibition, directed readings, portfolio development, written assignments including an artist statement, oral defense of exhibition, and faculty review. The 5 s.h. requirement can be fulfilled through enrollment in ART 6924 over successive semesters at between 1-5 s.h. credit; however, students are encouraged to complete the course within two semesters.

**Prereq.:** 18 studio credits.

### ART 6930 Studio Problems in Ceramics 3 s.h.

Individual research in spatial arts imagery. Concentration on individual study in ceramic construction, firing process and calculation, formulation and firing of clay bodies, and low-fire and high-fire glaze systems. May be repeated for a maximum of six semester hours of credit.

**Prereq.:** Permission of instructor and evidence of previous work.

### ART 6931 Studio Problems in Ceramics 1-3 s.h.

Continuation of ART 6930. May be repeated for a maximum of six semester hours of credit.

**Prereq.:** ART 6930.

### ART 6932 Studio Problems in Ceramics 1-3 s.h.

Continuation of ART 6931. May be repeated for a maximum of six semester hours of credit.

**Prereq.:** ART 6931.

### ART 6940 Studio Problems in Printmaking 3 s.h.

Individual research into monoprinting, intaglio etching, relief printing, silkscreen, lithography, and monotype. May be repeated for a maximum of six semester hours.

**Prereq.:** Portfolio presentation and permission of instructor.

### ART 6941 Studio Problems in Printmaking 1-3 s.h.

Continuation of ART 6940. May be repeated for a maximum of six semester hours.

**Prereq.:** ART 6940.

### ART 6942 Studio Problems in Printmaking 1-3 s.h.

Continuation of ART 6941. May be repeated for a maximum of six semester hours.

**Prereq.:** ART 6941.

### ART 6950 Studio Problems in Painting 3 s.h.

Individual research of two-dimensional form through various media, including oil, acrylic, watercolor, collage, etc. May be repeated for a maximum of six semester hours credit.

**Prereq.:** Permission of instructor and evidence of previous work.

**ART 6951 Studio Problems in Painting 3 s.h.**

Continuation of ART 6950. May be repeated for a maximum of six semester hours credit.

**Prereq.:** ART 6950.

**ART 6952 Studio Problems in Painting 1-3 s.h.**

Continuation of ART 6951. May be repeated for a maximum of six semester hours credit.

**Prereq.:** ART 6951.

**ART 6960 Special Topics in Art History 3 s.h.**

Study in one of the many areas of art history. May be taken up to three times for credit if the topic is not repeated.

**ART 6960A Special Topics in Art History: 19th Century European 3 s.h.**

Study in one of the many areas of art history. May be taken up to three times for credit if the topic is not repeated.

**ART 6970 Studio Problems in Photography 3 s.h.**

Individual research of photography through selected technical and aesthetic photographic topics using a variety of approaches for advanced fine art applications. May be repeated for a maximum of six semester hours of credit.

**Prereq.:** Permission of instructor and documentation of previous work.

**ART 6971 Studio Problems in Photography 3 s.h.**

Continuation of ART 6970. May be repeated for six semester hours of credit.

**Prereq.:** ART 6970.

**ART 6972 Studio Problems in Photography 3 s.h.**

Continuation of ART 6971. May be repeated for six semester hours of credit.

**Prereq.:** ART 6971.

**ART 6980 Studio Problems Digital Media 3 s.h.**

Individual research in digital forms of expression through various media, including but not limited to printed digital collage, video and Internet-based projects. May be repeated for a maximum of six semester hours of credit.

**Prereq.:** Permission of instructor and documentation of previous work.

**ART 6981 Studio Problems Digital Media 3 s.h.**

Continuation of ART 6980. May be repeated for six semester hours of credit.

**Prereq.:** ART 6980.

**ART 6982 Studio Problems Digital Media 3 s.h.**

Continuation of ART 6981. May be repeated for six semester hours of credit.

**Prereq.:** ART 6981.

**ART 6990 Interdisciplinary Studio 1-6 s.h.**

Self-motivated graduate study informed by contemporary theory and discourse. Students follow a personal, self-proposed, conceptual direction and work independently, supported by faculty. First year placed on challenging traditional ideas about creative practice by connecting and integrating various creative processes, materials and methodologies. Through scheduled critiques students present and discuss their studio research with peers and faculty. Total of 6 s.h. with a minimum of two different faculty first year fall semester.

**Prereq.:** Admission to MFA program.

**ART 6991 Interdisciplinary Studio 2 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991A Interdisciplinary Studio 2: Ceramics 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991B Interdisciplinary Studio 2: Digital Media 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991C Interdisciplinary Studio 2: Painting/Drawing 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991D Interdisciplinary Studio 2: Painting 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991E Interdisciplinary Studio 2 Photography 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991F Interdisciplinary Studio 2: Printmaking 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6991G Interdisciplinary Studio 2: Sculpture 1-9 s.h.**

Continuation of ART 6990. Self-motivated, individual studio practice. At the end of the second semester students are assessed on the ability to integrate self-directed research with the ideas and concepts proposed in the Interdisciplinary Seminar and Strategies courses. Second semester culminates in a first year group exhibition. Total of 1 to 9 s.h. with a minimum of two different faculty first year second semester.

**Prereq.:** ART 6990.

**ART 6992 Interdisciplinary Studio 3 1-6 s.h.**

Continuation of ART 6991. Self-motivated, individual studio practice. In the second year students begin research and practice leading to the MFA Thesis Project and Capstone. Total of 1 to 6 s.h. with a minimum of two different faculty second year fall semester.

**Prereq.:** ART 6991.

**ART 6993 Interdisciplinary Studio 4 1-9 s.h.**

Continuation of ART 6992. Self-motivated, individual studio practice. In the final semester students are focused on studio research and production of work for their MFA Thesis Project and Capstone. Total of 9 s.h. with a minimum of two different faculty second year spring and final semester.

**Prereq.:** ART 6992.

**ART 6994 Strategies in Interdisciplinary Practice 1 3 s.h.**

Through a wide range of readings and presentations, this course will explore the significant moments, theoretical foundations and current trends within interdisciplinary and collaborative visual art practices. These explorations will be paired with a series of long and short projects that demystify strategies and problems within the range of visual art practices discussed. The course will also discuss modes of content communication that exist across the different disciplines such as the use of specific symbols, materials, processes and context. While ideas and readings may link with the MFA seminar, this course is designed to give students a solid theoretical and practical foundation in an interdisciplinary studio art practice.

**Prereq.:** Admission to MFA program.

**ART 6995 Strategies in Interdisciplinary Practice 2 3 s.h.**

Through a wide range of readings and presentations, this course will expand on the dialogue from Strategies in Interdisciplinary Practice 1. These explorations will be paired with a series of long and short projects that demystify strategies and problems within the range visual art practices discussed. The course will also discuss modes of content communication that exist across the different disciplines, such as the use of specific symbols, materials, processes and context. While ideas and reading in this course may link and connect with the MFA seminar, this course is designed to build upon the solid theoretical and practical foundation built in Strategies in Interdisciplinary Practice.

**Prereq.:** ART 6994.

**ART 6996 Seminar in Interdisciplinary Theory 1 3 s.h.**

Covering the key concepts and topics of modern and contemporary critical theory, the course examines various aesthetic, cultural, political climates in relation to developments of interdisciplinary art practice. MFA Seminar should be taken in sequence and serve as a dynamic forum for student research, critique, discussion, and the conceptual foundation for their individual studio practices.

**Prereq.:** Admission to MFA program.

**ART 6997 Seminar Interdisciplinary Theory 2 3 s.h.**

Topic will rotate each semester and address key concepts and topics of modern and contemporary critical theory. The course provides various perspectives towards the understanding of interdisciplinary art practice and critical discourses within contemporary art culture. Students will investigate interconnections between philosophical and theoretical issues and the ways they inform and impact interdisciplinary art practice today. MFA Seminar should be taken in sequence and serve as a foundation for individual studio practices.

**Prereq.:** ART 6996.

**ART 6998 Seminar Interdisciplinary Theory 3 3 s.h.**

Topics will vary each semester and address key concepts and topics of modern and contemporary critical theory. The course provides ongoing discussion surrounding the understanding of interdisciplinary art practice and critical discourses within contemporary art culture. Students will investigate interconnections between philosophical and theoretical issues and the ways they inform and impact interdisciplinary art practice today. As the last course within MFA Seminary sequence, it serves as a foundation for individual studio practice.

**Prereq.:** ART 6996.

**ART 6999 MFA Thesis Project and Capstone Research 6 s.h.**

Programmatic exit requirement and culmination of the 60 credit MFA in Interdisciplinary Visual Arts. Activities include design and production of artworks for exhibition, directed readings, writing assignments including thesis and portfolio development, professional practices, exhibition design, oral thesis defense and faculty review.

**Prereq.:** permission of graduate advisor.

## Master of Health and Human Services

### Program Director

Dr. Joseph Lyons  
1086 Cushwa Hall

(330) 941-3658

jplyons@ysu.edu

## Program Description

The Master of Health and Human Services is a collaborative degree between The Bitonte College of Health and Human Services and the Warren P. Williamson, Jr. College of Business Administration. The program accommodates students from health and human services professions who require the skills and abilities for supervisory/managerial positions or who desire competence in health promotion and methods in the community. The program is structured as a completely online or evening college program. After completion of an academic core of coursework, students may concentrate in health promotion, health care administration or health informatics for health and human service professions.

## Admission Requirements

In addition to the minimum College of Graduate Studies admission requirements, applicants must complete the following undergraduate courses or their equivalent:

COURSE	TITLE	S.H.
	Research Methodology	
	Statistics	
ACCT 2602	Financial Accounting	3
AHLT 4810	Management Skills for Health Professionals	3
OR		
MGT 3725	Fundamentals of Management	3

Students should complete any undergraduate deficiency coursework before completion of the third semester of graduate work and must complete it prior to enrolling in related graduate-level courses. Also, students must submit three letters of reference:

- one from a faculty member,
- one from an employer, and
- one from another source, or
- two from faculty members and one from another source.

Regular admission requires a cumulative undergraduate grade point average of at least 3.0 (on a 4.0 scale).

## Graduate Faculty

**Ronald K. Chordas**, Ph.D., Assistant Professor

**John M. Hazy**, Ph.D., Professor  
Community health; life course issues; teaching effectiveness

**Joseph P. Lyons**, Sc.D., Associate Professor  
Health informatics; voice recognition; electronic medical records

There are two areas of coursework in the MHHS: an academic core and a specialty track. A thesis or non-thesis option is available with each track.

The academic core consists of 23-24 semester hours distributed among the following course areas:

- tools (six semester hours),
- management skills (six semester hours), and
- issues in health and human services (12 semester hours).

A total of 12 to 13 semester hours of coursework is devoted to a specialty track in health promotion, administration for health and human service professions, and health informatics. Each track offers a thesis or non-thesis option. The non-thesis option in the health promotion, administration for health and human service professions, and health informatics track requires

the student to complete an internship, which is called a practicum. The thesis must be submitted according to the general requirements established by the College of Graduate Studies. The student is required to defend the thesis in an oral presentation before a committee of graduate faculty from a minimum of two academic disciplines. Students selecting the non-thesis option must successfully complete a comprehensive examination and additional courses for graduation.

COURSE	TITLE	S.H.
<b>Academic Core</b>		
<b>Tools <sup>1</sup></b>		
CJFS 6942	Research and Statistics in Health and Human Services	3
HHS 6930	Health Informatics	3
<b>Management Skills Courses 6 sh</b>		
MGT 6930	Managing and Leading in Organizations	2
AND		
MGT 6941	Managing Organizational Talent (MGT 6930 & MGT 6941 Must be taken in the same semester)	2
MGT 6947	Managing Information & Technology	2
HHS 6971	Optimizing Performance and Commitment	3
HHS 6955	The Impact of Health Informatics on the Quality of Health Care Service	3
<b>Issues in Health and Human Services 12 sh</b>		
HHS 6949	Community Health Practice	3
HHS 6953	Health Behavior	3
HHS 6958	Health Services Issues	3
HHS 6962	Health Care Reform	3
<b>Select One of the Following Tracks</b>		
<b>Health Promotion Track 13 - 15 sh</b>		
HHS 6959	Foundation and Planning	3
HHS 6960	Implementation and Evaluation	3
HHS 6980	Seminar	3
HHS 6981	Grant Writing	3
HHS 6990	Practicum	1-2
OR		
HHS 6999	Thesis ((If Thesis Option Selected))	3
<b>Health Care Administration Track 11 - 13 sh</b>		
HHS 6918	Program Planning and Evaluation	3
HHS 6922	Planning and Fiscal Management	4
HHS 6980	Seminar	3
HHS 6990	Practicum	1-2
OR		
HHS 6999	Thesis	3
<b>Health Informatics Track 14 - 16 sh</b>		
HHS 6922	Planning and Fiscal Management	4
HHS 6935	Clinical Informatics	3
HHS 6945	Health Care System Analysis	3
HHS 6955	The Impact of Health Informatics on the Quality of Health Care Service	3
HHS 6990	Practicum	1-2
OR		
HHS 6999	Thesis	3
<b>Total Semester Hours</b>		<b>77-80</b>

<sup>1</sup> Prerequisites for the tools courses include undergraduate research methodology, a statistics course, and ACCT 2602 Financial Accounting or equivalent.

- <sup>2</sup> Prerequisite for the management skills component is AHLT 4810 Management Skills for Health Professionals, MGT 3725 Fundamentals of Management or equivalent.

## Learning Outcomes

1. The student will demonstrate skills to access and integrate important facts, concepts, principles, and theories in the field of management when developing solutions to problems.
2. The student will utilize current technologies such as, computer and online systems/services, to access and communicate information.
3. The student will demonstrate effective research skills.
4. The student will produce a manuscript in a style suitable for publication.
5. The student will demonstrate skills to critically analyze health and human services issues.

## Graduate Courses

### HHS 6900 Special Topics 1-3 s.h.

Topics may vary from semester to semester and will be announced along with prerequisites and hours. May be repeated once for a total of six hours.

### HHS 6918 Program Planning and Evaluation 3 s.h.

Principles of planning, developing, implementing, and evaluating programs for nonprofits to improve outcomes.

**Prereq.:** College of Health and Human Services student or permission of instructor.

### HHS 6922 Planning and Fiscal Management 4 s.h.

Principles and skills to conduct strategic plans, analyze and administer programs, develop budgets, and familiarize students with fiscal matters related to funding sources.

**Prereq.:** ACCT 2602 and HHS 6918 or permission of instructor.

### HHS 6930 Health Informatics 3 s.h.

This course presents a detailed review of the structure of provider, payer, and other health care organizations along with the workflow in these types of organizations and their information system needs; how informatics assists these organizations; how information is used in business and clinical operations; and how information technologies interact with business and clinical stakeholders.

**Prereq.:** MHHS student or permission of instructor.

### HHS 6935 Clinical Informatics 3 s.h.

This course will provide the nursing student with a comprehensive framework of clinical informatics knowledge. It addresses how clinical informatics assists health care organization, how information is used in clinical operations, and how information technologies interact with clinical stakeholders in provider, payer, and other healthcare organizations.

**Prereq.:** Current enrollment in the MHHS or MSN program.

### HHS 6945 Health Care System Analysis 3 s.h.

This course presents a practical approach to introduce students to information technology and systems development. The course emphasizes the importance of system analysis and design in health care/business and clinical environments. The focus is on producing an add application that is integrated with your vendor applications.

**Prereq.:** Current enrollment in the MHHS or MSN program and successful completion of HHS 6930.

### HHS 6949 Community Health Practice 3 s.h.

An examination of various physiological, psychological, and sociological factors which influence the health and provision of healthcare in a community.

**Prereq.:** AHLT 4810 and PHLT 3791 or equivalent or permission of instructor.

### HHS 6950 Professional Codes in Healthcare 3 s.h.

An analysis of professional codes and personal ethical beliefs in relationships of trust in contemporary healthcare.

**Prereq.:** PHIL 3725 Biomedical Ethics, PHIL 6900, or PHIL 6901.

**HHS 6953 Health Behavior 3 s.h.**

A review of research studies, theories, and models which identify elements that influence behavior and determine factors which deter positive behaviors.  
**Prereq.:** HHS 6949 or permission of instructor.

**HHS 6955 The Impact of Health Informatics on the Quality of Health Care Service 3 s.h.**

This course presents a review of the Electronic Health Record and the US National Health Information Network. Structure of provider, payer, and other health care organizations along with the work flow in these types of organizations and their information system's needs. It addresses how informatics assists these organizations, how information is used in business and clinical operations, and how information technologists interact with business and clinical stakeholders in provider, payer, and other healthcare organizations. Students will analyze the informatics function and organizational relationships in their organizations.

**HHS 6958 Health Services Issues 3 s.h.**

An examination of current philosophical, legal, and ethical issues in healthcare with the inclusion of the role of health professionals in national health policy, and healthcare reform.

**Prereq.:** HHS 6949 or permission of instructor.

**HHS 6959 Foundation and Planning 3 s.h.**

Developing effective health promotion programs through a study of the history, philosophy, ethics, and values of health promotion, as well as the principles of effective planning incorporating needs assessment and formulation of objectives.

**Prereq.:** CHHS student or permission of instructor.

**HHS 6960 Implementation and Evaluation 3 s.h.**

Examination of principles, methods, and materials of conducting and evaluating health promotion programs in various community settings. Work will be documented in evaluation reports.

**Prereq.:** HHS 6959 or permission of instructor.

**HHS 6962 Health Care Reform 3 s.h.**

The purpose of the course is to give students the skills necessary to understand all aspects of health and health care especially those related to Health Care Reform and recent and previous legislation. It will examine the supply of and demand for health services, and the analysis of health care systems and current, previous and potential future legislation relevant to health care reforms.

**Prereq.:** Current enrollment in MHHS program.

**HHS 6970 Organizational Behavior in Health Care 3 s.h.**

Examines the concepts of individual and group behavior in health care organizations, including theories and models associated with workplace stress, conflict management, decision-making, teamwork and leadership.

**Prereq.:** AHLT 4810, or MGT 6900, or MGT 6961.

**HHS 6971 Optimizing Performance and Commitment 3 s.h.**

An examination of the motivational culture and performance in health and human services organizations. Includes the impact of resource management, personnel selection, recruitment, retention, and the motivational system in relation to employee performance and commitment.

**Prereq.:** AHLT 4810 or MGT 6900.

**HHS 6972 Information Systems for Health and Human Services Management 3 s.h.**

An introduction to the design, implementation, and utilization of information systems. Emphasis is on the managerial and decision support aspects of information systems as well as current issues involving technology in the health and human services industries.

**Prereq.:** AHLT 4810 or MGT 6900.

**HHS 6980 Seminar 3 s.h.**

A synthesis of the role of education and management in health or human services. Emphasis on specific problems, concerns, or relative issues related to various work settings. Researched, developed, and presented using manuscript form and PowerPoint.

**Prereq.:** HHS 6958 and any research class or permission of instructor.

**HHS 6981 Grant Writing 3 s.h.**

Insight into the methods, strategies, and techniques of grant writing, with emphasis on the proposal components and exploration of funding sources. Each student will exhibit competence in planning, developing, and evaluating a proposal.

**Prereq.:** HHS 6918 and HHS 6922 or HHS 6959 and HHS 6960; HHS 6980 or permission of instructor.

**HHS 6990 Practicum 1-2 s.h.**

Supervised practicum in selected health and human services facilities offering health and human services administration experience.

**Prereq.:** Approval of advisor.

**HHS 6999 Thesis 1-4 s.h.**

**HHS 8949 Community Health Practice 3 s.h.**

An examination of various physiological, psychological, and sociological factors, which influence the health and provision of healthcare in a community.D. program in Educational Leadership and HSC 3791 Community Health or equivalent or permission of instructor. Ed.D. students who have not taken HHS 6949 are required to complete HHS 8949 and complete a supplemental, substantive course assignment involving the determinants of health and their relationship to socioeconomic factors, socioeconomic inequalities, and race vs. class.

**Prereq.:** Admission to Ed.

**HHS 8953 Health Behavior 3 s.h.**

A review of research studies, theories, and models, which identify elements that influence behavior and determine factors that deter positive behaviors.D. program in Educational Leadership and HHS 8949. Ed.D. students who have not taken HHS 6953 are required to complete HHS 8953 and complete a supplemental, substantive course assignment involving research on health and human services issues.

**Prereq.:** Admission to Ed.

**HHS 8958 Health Services Issues 3 s.h.**

An examination of current philosophical, legal, and ethical issues in healthcare with the inclusion of the role of health professionals in national health policy and healthcare reform.D. program in Educational Leadership and HHS 8949. Ed.D. students who have not taken EDAD 6958 are required to complete EDAD 8958 and complete a supplemental, substantive course assignment involving research on health and human services issues.

**Prereq.:** Admission to Ed.

## Health Informatics Certificate

The Health Informatics was designed for students in the Computer Science Information Systems (CSIS) interested in working in Health Care to earn a certification credential which will help them gain employment in the Health Care field which has undergone a significant advancement in recent years in the area of Health Information Systems. MHHS students will also have an opportunity to receive additional training in Computer Science Information Systems leading to a Health Informatics Certificate in addition to their MHHS Degree.

COURSE	TITLE	S.H.
Complete 3 semester hours of the following:		3
HHS 6949	Community Health Practice	
HHS 6953	Health Behavior	
HHS 6958	Health Services Issues	
HHS 6962	Health Care Reform	
Complete 9 semester hours of the following:		9
HHS 6930	Health Informatics	
or		
CSCI 6920	Theory and Practice of Information Systems	
HHS 6935	Clinical Informatics	
HHS 6945	Health Care System Analysis	
or		

CSCI 6951	Data Warehousing and Data Mining
HHS 6955	The Impact of Health Informatics on the Quality of Health Care Service
Complete 6 semester hours of the following:	
HHS 6900	Special Topics
HHS 6922	Planning and Fiscal Management
HHS 6918	Program Planning and Evaluation
CSCI 6901	Principles of Computer Programming
or	
CSCI 6971	Cloud Computing and Big Data

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## Learning Objectives:

1. To prepare future health informatics leaders who understand the complex interplay among the health informatics stakeholder communities,
2. To enhance the ability to use the inter-relationships among health information technology, the healthcare delivery and regulatory processes, and information management,\
3. To grow a set of leadership behaviors that emphasizes professional competence, moral and ethical performance,
4. To demonstrate professional and technical competence in health informatics,
5. To instill a dedication to the use of technology for the benefit of humanity,
6. To create a sensitivity to the impact that the use of technology has on the person, and
7. To build a desire for life-long professional learning and development in health informatics.

## Master of Music

### Program Director

Dr. Paul Louth  
Bliss Hall  
(330) 941-3636  
jplouth@ysu.edu

### Program Description

Master's degrees are offered in music education, music performance, music history, music theory/composition, and jazz studies through the Dana School of Music, which was founded in Warren, Ohio, in 1869 as Dana's Musical Institute. A member of the National Association of Schools of Music, Dana currently enrolls 300 undergraduate and graduate students. The Dana School of Music is designated an All-Steinway School, featuring 68 Steinway pianos in addition to six mechanical action organs, two harpsichords, an electronic music laboratory, and 80 acoustically treated practice rooms, all housed in the \$6 million Bliss Hall. In addition, the University library contains a large music section, especially notable for its collected and scholarly editions, while the Multimedia Center holds several thousand recordings, and practical edition scores.

### Admission Requirements

Applicants for admission to graduate study in the Master of Music degree must present a baccalaureate degree in music from an accredited college or university. Admission requires a cumulative undergraduate grade point average of at least 2.7 (on a 4.0 scale). Students with less than a 2.7 average must provide satisfactory scores on the aptitude portion of the Graduate Record Examination. Upon admission and before the end of the first semester of graduate study, each student must take a placement examination in music history and music theory. Failure to do so will result in an addition of six semester hours (three semester hours in music theory, three semester hours in music history) to the 32-semester-hour degree program. Theory/composition applicants must submit evidence of compositional or analytic activity. All performance degree applicants must audition on their principal instrument for

acceptance to the appropriate applied music level. Students with a major in conducting performance must show evidence of conducting skill through an audition and interview. Students wishing to enroll in any music course under non-degree status must have the approval of the Coordinator of Graduate Studies in Music.

## Graduate Faculty

**Ewelina Boczkowska**, Ph.D., Associate Professor  
Music, memory, and Polish film; "auteur" cinema; American musicals; Chopin; music in the 1960's

**Kent J. Engelhardt**, Ph.D., Professor  
Charlie Parker; Bebop; Kansas City Jazz

**Francois P. Fowler**, D.M., Associate Professor  
Guitar performance, pedagogy, and literature

**Stephen L. Gage**, Ed.D., Professor  
Instrumental music education; conducting

**Randall E. Goldberg**, Ph.D., Associate Professor, Chair  
Historical musicology; early modern Europe; 18th century music; Jewish identity

**Brian D. Kiser**, D.M.A., Associate Professor  
Brass pedagogy; brass performance; music industry

**Hae-Jong Lee**, D.M.A., Associate Professor  
Choral conducting and literature; voice studies

**J. Paul Louth**, Ph.D., Associate Professor  
Instrumental music education; brass methods; trombone

**Stacie Renee Mickens**, D.M.A., Associate Professor  
Performance (solo, chamber, orchestral); chamber music; new music; practice habits

**David S. Morgan**, D.M.A., Professor  
Jazz performance; composition; music theory

**Caroline Oltmanns**, D.M.A., Professor  
Piano performance

**Jena Root**, Ph.D., Associate Professor

**Glenn Schaft**, D.M.A., Professor  
Percussion; classical, contemporary, jazz, Afro-Cuban, and Brazilian music

**James C. Umble**, D.M.A., Professor  
Technology in education; music technology; music performance and pedagogy (saxophone); curriculum development in the arts; integrated arts

**Kathryn T. Umble**, D.M.A., Professor  
Japanese flute; flute; guitar

**Misook Yun**, D.M.A., Professor

## Graduate Courses

**BASS 5800A Bassoon 1 s.h.**  
Private Music Lessons.

**BASS 5800B Bassoon 1 s.h.**  
Private Music Lessons.

**BASS 6901 Bassoon 2 s.h.**  
Private Music Lessons.

**BASS 6902 Bassoon 2 s.h.**  
Private Music Lessons.

**BASS 6903 Bassoon 3 s.h.**

Private Music Lessons.

**BASS 6904 Bassoon 3 s.h.**

Private Music Lessons.

**BASS 6905 Bassoon 4 s.h.**

Private Music Lessons.

**BASS 6906 Bassoon 4 s.h.**

Private Music Lessons.

**BHRN 5800A Baritone Horn 1 s.h.**

Private Music Lessons.

**BHRN 5800B Baritone Horn 1 s.h.**

Private Music Lessons.

**BHRN 6901 Baritone Horn 2 s.h.**

Private Music Lessons.

**BHRN 6902 Baritone Horn 2 s.h.**

Private Music Lessons.

**BHRN 6903 Baritone Horn 3 s.h.**

Private Music Lessons.

**BHRN 6904 Baritone Horn 3 s.h.**

Private Music Lessons.

**BHRN 6905 Baritone Horn 4 s.h.**

Private Music Lessons.

**BHRN 6906 Baritone Horn 4 s.h.**

Private Music Lessons.

**CELL 5800A Cello 1 s.h.**

Private Music Lessons.

**CELL 5800B Cello 1 s.h.**

Private Music Lessons.

**CELL 6901 Cello 2 s.h.**

Private Music Lessons.

**CELL 6902 Cello 2 s.h.**

Private Music Lessons.

**CELL 6903 Cello 3 s.h.**

Private Music Lessons.

**CELL 6904 Cello 3 s.h.**

Private Music Lessons.

**CELL 6905 Cello 4 s.h.**

Private Music Lessons.

**CELL 6906 Cello 4 s.h.**

Private Music Lessons.

**CLAR 5800A Clarinet 1 s.h.**

Private Music Lessons.

**CLAR 5800B Clarinet 1 s.h.**

Private Music Lessons.

**CLAR 6901 Clarinet 2 s.h.**

Private Music Lessons.

**CLAR 6902 Clarinet 2 s.h.**

Private Music Lessons.

**CLAR 6903 Clarinet 3 s.h.**

Private Music Lessons.

**CLAR 6904 Clarinet 3 s.h.**

Private Music Lessons.

**CLAR 6905 Clarinet 4 s.h.**

Private Music Lessons.

**CLAR 6906 Clarinet 4 s.h.**

Private Music Lessons.

**CNDC 6901 Conducting 2 s.h.**

Private Music Lessons.

**CNDC 6902 Conducting 2 s.h.**

Private Music Lessons.

**CNDC 6903 Conducting 3 s.h.**

Private Music Lessons.

**CNDC 6904 Conducting 3 s.h.**

Private Music Lessons.

**CNDC 6905 Conducting 4 s.h.**

Private Music Lessons.

**CNDC 6906 Conducting 4 s.h.**

Private Music Lessons.

**FHRN 5800A French Horn 1 s.h.**

Private Music Lessons.

**FHRN 5800B French Horn 1 s.h.**

Private Music Lessons.

**FHRN 6901 French Horn 2 s.h.**

Private Music Lessons.

**FHRN 6902 French Horn 2 s.h.**

Private Music Lessons.

**FHRN 6903 French Horn 3 s.h.**

Private Music Lessons.

**FHRN 6904 French Horn 3 s.h.**

Private Music Lessons.

**FHRN 6905 French Horn 4 s.h.**

Private Music Lessons.

**FHRN 6906 French Horn 4 s.h.**

Private Music Lessons.

**FLUT 5800A Flute 1 s.h.**

Private Music Lessons.

**FLUT 5800B Flute 1 s.h.**

Private Music Lessons.

**FLUT 6901 Flute 2 s.h.**

Private Music Lessons.

**FLUT 6902 Flute 2 s.h.**

Private Music Lessons.

**FLUT 6903 Flute 3 s.h.**

Private Music Lessons.

**FLUT 6904 Flute 3 s.h.**

Private Music Lessons.

**FLUT 6905 Flute 4 s.h.**

Private Music Lessons.

**FLUT 6906 Flute 4 s.h.**

Private Music Lessons.

**GUIT 5800A Guitar 1 s.h.**

Private Music Lessons.

**GUIT 5800B Guitar 1 s.h.**

Private Music Lessons.

**GUIT 6901 Guitar 2 s.h.**

Private Music Lessons.

**GUIT 6902 Guitar 2 s.h.**

Private Music Lessons.

**GUIT 6903 Guitar 3 s.h.**

Private Music Lessons.

**GUIT 6904 Guitar 3 s.h.**

Private Music Lessons.



**GUI 6905 Guitar 4 s.h.**

Private Music Lessons.

**GUI 6906 Guitar 4 s.h.**

Private Music Lessons.

**HARP 5800A Harpsichord 1 s.h.**

Private Music Lessons.

**HARP 5800B Harpsichord 1 s.h.**

Private Music Lessons.

**HARP 6901 Harpsichord 2 s.h.**

Private Music Lessons.

**HARP 6902 Harpsichord 2 s.h.**

Private Music Lessons.

**HARP 6903 Harpsichord 3 s.h.**

Private Music Lessons.

**HARP 6904 Harpsichord 3 s.h.**

Private Music Lessons.

**HARP 6905 Harpsichord 4 s.h.**

Private Music Lessons.

**HARP 6906 Harpsichord 4 s.h.**

Private Music Lessons.

**MCMP 6903 Advanced Composition 3 s.h.**

Individual instruction in the composition of larger forms for chorus, orchestra, or chamber ensembles.

**Prereq.:** Permission of instructor.**MCMP 6904 Advanced Composition 3 s.h.**

Individual instruction in the composition of larger forms for chorus, orchestra, or chamber ensembles.

**Prereq.:** Permission of instructor.**MUAC 6977 Philosophies of Music 3 s.h.**

Development of advanced music scholarship skills through readings, analysis, and critique of some of the major ideas about music's value and place in society that have been advanced by scholars ranging from the ancient Greeks to contemporary music critics, performers, philosophers, educators, and psychologists. Course takes an interdisciplinary approach to developing the skills to articulate music advocacy arguments. One of three core required courses for all masters students.

**MUED 5814 Selected Topics in Music Education 2 s.h.**

Course title will be listed each semester in the Schedule of Classes. May be repeated for credit with different topics.

**Prereq.:** MUED 4823 or MUED 4825.**MUED 5841 Music Workshop 1-3 s.h.**

For students and teachers in service; topics may vary from year to year. Specific topics are announced each time the workshop is offered. May be repeated with different topic.

**MUED 5858 Piano Pedagogy 3 s.h.**

Methods and materials involved in teaching piano in private and classroom settings. Fundamentals of technique as well as repertoire. Supervised practice teaching.

**Prereq.:** Two years of applied keyboard.**MUED 5880 Vocal Pedagogy 1 s.h.**

A comparative study of physiological and psychological approaches to voice instruction and their application to private and class instruction.

**Prereq.:** Two years of applied voice classes.**MUED 6950 Conducting Pedagogy 2 s.h.**

The study and critical analysis of methods for teaching conducting.

**Prereq.:** One semester of applied conducting study.**MUED 6960 Research in Music 3 s.h.**

A study of research tools and methodologies as applied to music scholarship and bibliography. This course is intended to lay the foundation for the thesis or exit paper, and a final research project or project proposal is required. May include the study of historical, philosophical, qualitative, quantitative, and/or analytic research methods, as deemed appropriate for students' areas of research. Crosslisted with MUHL 6960.

**MUED 6970 Foundations of Music Education 3 s.h.**

An examination of basic principles and techniques of music instruction; contemporary trends viewed from historical perspectives.

**MUED 6972 Seminar in Music Education 3 s.h.**

Individual projects and discussion of fundamental issues in music education. Course may be repeated once with permission of instructor.

**MUED 6973 Research Methods and Materials in Music Education 3 s.h.**

A study of research tools and techniques and their application to problems in music education; critique of research studies. Research report required in nonthesis music education program.

**MUED 6975 Music and the Humanities 3 s.h.**

Designed to aid in the development of interdisciplinary courses involving music and the humanities in the secondary school.

**MUED 6976 Directed Study in Conducting 3 s.h.**

Study of significant works, vocal or instrumental; special problems in conducting. May be repeated for credit.

**MUED 6977 Philosophies of Music 3 s.h.**

Development of advanced music scholarship skills through readings, analysis, and critique of some of the major ideas about music's value and place in society that have been advanced by scholars ranging from the ancient Greeks to contemporary music critics, performers, philosophers, educators, and psychologists. Course takes an interdisciplinary approach to developing the skills to articulate music advocacy arguments. One of three core required courses for all masters students.

**MUED 6978 Contemporary Trends in Music Education 3 s.h.**

Examination and discussion of music education in contemporary society. Consideration of repertoire, methods, and teaching aids with regard to current needs and emerging trends.

**MUED 6979 Workshop in Music Education 1-3 s.h.**

For students and teachers in service. Specific topics are announced each time the workshop is offered. Grading is satisfactory or unsatisfactory (S/U). May be repeated with different topic.

**MUED 6981 Elementary School Music Practicum 3 s.h.**

Field experiences, demonstrations, and lectures to acquaint the student with the many facets of elementary music instruction. Contemporary trends and innovative programs will be examined. Students will be encouraged to introduce certain programs and approaches in their own teaching situations.

**Prereq.:** Teaching experience or student teaching.**MUED 6982 Secondary School Music Practicum 3 s.h.**

An examination of the total secondary school music program through guided field experiences, demonstrations, and lectures. The development of curriculum in general music and instrumental and vocal music will be considered in light of the student's needs and abilities.

**Prereq.:** Teaching experience or student teaching.**MUED 6992 Independent Projects in Music 1-4 s.h.**

Individual research topics in music of a library, laboratory, or fieldwork nature.

**Prereq.:** Approval of Dana Graduate Committee.**MUHL 5860 Keyboard Literature 3 s.h.**

An investigation of the solo keyboard works of major composers from the earliest times to the present day.

**Prereq.:** MUTC 2632.

**MUHL 5871 Baroque Music 3 s.h.**

The evolution of musical styles during the period 1600-1750. A historical survey of documents and music literature of the time: opera from Monteverdi to Handel; keyboard and instrumental works; significant choral works, etc.

**Prereq.:** MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773, and MUHL 3774.

**MUHL 5872 Eighteenth Century and the Viennese Classical School 3 s.h.**

Musical developments from the decline of the baroque to the turn of the century; historical and stylistic elements contributing to the rise of classicism and culminating in the works of Mozart, Haydn, Beethoven.

**Prereq.:** MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773 and MUHL 3774.

**MUHL 5873 Opera History 3 s.h.**

A historical survey of opera: its development as an art form from its beginnings to the present.

**Prereq.:** MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773 and MUHL 3774.

**MUHL 5874 Nineteenth Century 3 s.h.**

Musical developments from Beethoven through Wagner; aesthetic, formal, technical and historical trends with special emphasis on nationalism and the music drama.

**Prereq.:** MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773, and MUHL 3774.

**MUHL 5878 Selected Topics in Music History 3 s.h.**

A study of a specific topic to be announced each time the course is offered. May be repeated once with different topic.

**Prereq.:** MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773, and MUHL 3774.

**MUHL 5879 Vocal Literature 3 s.h.**

A study of vocal literature from all periods. Special emphasis on English language repertoire and on material especially suitable for high school students. Songs are prepared for performance in class.

**Prereq.:** MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773, and MUHL 3774.

**MUHL 6940 Music in the Middle Ages 3 s.h.**

The development of polyphonic music, early organum to ca. 1450, with emphasis on techniques, styles, and forms. Seminar, with readings, reports, and musical illustrations.

**MUHL 6941 Music in the Renaissance 3 s.h.**

Musical developments from ca. 1450-1600 dealing with the vocal music of this period, both sacred and secular, and the formulation of independent instrumental styles. Seminar with readings, reports, and musical illustrations.

**MUHL 6943 Seminar in Musicology 3 s.h.**

An examination of select problems in musicology. May be repeated with permission of instructor.

**MUHL 6944 Seminar in Symphonic Literature 3 s.h.**

An investigation of the literature written for symphony orchestra.

**MUHL 6945 Selected Topics in Music Literature 3 s.h.**

Various topics related to the study of music literature. Specific topic is announced each time the course is offered. May be repeated with a different topic.

**MUHL 6946 Selected Topics in Jazz History 3 s.h.**

Topical studies will develop a historical perspective of a specific period of jazz or a specific jazz artist including related cultures, events, and the development of musical style. Sample topics: early jazz, the Post-Bop Era, the music of John Coltrane. May be repeated with a different topic.

**MUHL 6960 Research in Music 3 s.h.**

A study of research tools and methodologies as applied to music scholarship and bibliography. This course is intended to lay the foundation for the thesis or exit paper, and a final research project or project proposal is required. May include the study of historical, philosophical, qualitative, quantitative, and/or analytic research methods, as deemed appropriate for students' areas of research. Crosslisted with MUED 6960.

**MUHL 6977 Philosophies of Music 3 s.h.**

Development of advanced music scholarship skills through readings, analysis, and critique of some of the major ideas about music's value and place in society that have been advanced by scholars ranging from the ancient Greeks to contemporary music critics, performers, philosophers, educators, and psychologists. Course takes an interdisciplinary approach to developing the skills to articulate music advocacy arguments. One of three core required courses for all masters students.

**MUHL 6990 Thesis 1 2 s.h.**

Individual research and writing culminating in the preparation of a master's thesis.

**Prereq.:** Completion of 15 semester hours coursework and approval of thesis proposal by the Dana Graduate Committee.

**MUHL 6991 Thesis 2 1-2 s.h.**

Individual research and writing culminating in the preparation of a master's thesis.

**Prereq.:** Completion of 15 semester hours coursework and approval of thesis proposal by the Dana Graduate Committee.

**MUTC 5821 Composition for Minors 2 s.h.**

Composition in two- and three-part forms, and other compositions of small scope, such as variation and sonatina. Works are composed both for piano alone, and in combination with other instruments or voice. May be repeated by composition majors to meet requirements for freshman and sophomore composition for majors.

**Prereq.:** MUTC 2632 with a grade of "C" or better, or permission of instructor for composition majors.

**MUTC 5822 Composition for Minors 2 s.h.**

Composition in two- and three-part forms, and other compositions of small scope, such as variation and sonatina. Works are composed both for piano alone, and in combination with other instruments or voice. May be repeated by composition majors to meet requirements for freshman and sophomore composition for majors.

**Prereq.:** MUTC 2632 with a grade of "C" or better, or permission of instructor for composition majors.

**MUTC 5828 Music Technology 3 s.h.**

An exploration of the use of computers and technology in music. Applications related to composition, performance, analysis, teaching, and research.

**Prereq.:** MUTC 2632 with grade of "C" or better or permission of instructor.

**MUTC 5830 Materials of 20th Century Music 3 s.h.**

Study of the various elements of 20th century compositions, including melody, harmony, rhythm, texture, and form.

**Prereq.:** MUTC 2632 with a grade of "C" or better.

**MUTC 5831 Modal Counterpoint 3 s.h.**

Sixteenth century contrapuntal style including introduction of species technique; analysis of liturgical and secular repertoire; writing of imitative counterpoint with stylistic rhythms and cadences.

**Prereq.:** MUTC 2632 with a grade of "C" or better.

**MUTC 5832 Tonal Counterpoint 3 s.h.**

Contrapuntal style of baroque music including an analysis of examples in imitative and invertible counterpoint; writing two- and three-part inventions and three- and four-part fugal expositions.

**Prereq.:** MUTC 2632 with a grade of "C" or better.

**MUTC 5833 Theory Seminar 3 s.h.**

Topics in music theory not covered in regular upper-division offerings. May be repeated once with different topic.

**Prereq.:** MUTC 2632 with a grade of "C" or better.

**MUTC 5834 Electronic Music 3 s.h.**

Techniques of analog and digital synthesis including tape composition, musique concrete; advanced MIDI applications such as sequencing and sampling; and digital audio editing. Composition in electronic and mixed media.

**Prereq.:** For composition majors, COMP 1502 or equivalent; for non-composition majors, MUTC 2632 with a grade of "C" or better; for non-majors, permission of instructor.

**MUTC 5840 Instrumentation 3 s.h.**

Ranges, transposition, technical characteristics, and tonal features of the instruments. Scoring for large and small ensembles which are available as laboratory reading groups.

**Prereq.:** MUTC 2632 with a grade of "C" or better.

**MUTC 6903 Advanced Composition 3 s.h.**

Individual instruction in the composition of larger forms for chorus, orchestra, or chamber ensembles.

**Prereq.:** Permission of Instructor.

**MUTC 6904 Advanced Composition 3 s.h.**

Individual instruction in the composition of larger forms for chorus, orchestra, or chamber ensembles.

**Prereq.:** Permission of instructor.

**MUTC 6913 Pedagogy of Theory 3 s.h.**

The study and critical analysis of methods for teaching harmony, sightsinging, and ear training.

**MUTC 6916 Fugue 3 s.h.**

Analysis of the fugal style used in 17th-century trio sonatas and in both volumes of *The Well-Tempered Clavier* by J. S. Bach; writing three to four voice fugues employing imitative and invertible counterpoint.

**MUTC 6921 Graduate Analysis 1 3 s.h.**

Foundational graduate study of musical analysis. Includes basic techniques of harmonic, melodic, and rhythmic analysis applied to a selection of music literature from the seventeenth century through the present time.

**MUTC 6922 Graduate Analysis 2 3 s.h.**

Continuing graduate study of musical analysis. Includes advanced techniques of harmonic, melodic, and rhythmic analysis applied to a selection of music literature from the seventeenth century through the present time.

**Prereq.:** MUTC 6921 with a grade of "B" or higher or 70% or higher on graduate entrance exam or instructor's permission.

**MUTC 6930 Baroque Music Styles 3 s.h.**

Stylistic and structural analysis of compositions from the Baroque Era.

**MUTC 6931 Classic Music Styles 3 s.h.**

Stylistic and structural analysis of compositions from the Classic Era.

**MUTC 6932 Romantic Music Styles 3 s.h.**

Stylistic and structural analysis of compositions from the Romantic Era.

**MUTC 6933 Twentieth-Century Music Styles 3 s.h.**

Stylistic and structural analysis of compositions from the 20th century.

**MUTC 6935 Jazz Theory 3 s.h.**

This course examines the process of jazz improvisation and undertakes a critical evaluation of the existing modes of analyzing improvisation. Students will learn to differentiate between pedagogical, speculative, and analytical theory and to apply appropriate analytical techniques according to the musical context. Emphasis will be placed on the development of critical listening and reading skills.

**MUTC 6936 Jazz Composition 3 s.h.**

Students will study the styles of leading jazz composers and arrangers in the process of developing their craft and their own style. Assignments will include a portfolio of compositions and analysis of compositions by Jelly Roll Morton, Duke Ellington, Thad Jones, and others.

**OBOE 5800A Oboe 1 s.h.**

Private Music Lessons.

**OBOE 5800B Oboe 1 s.h.**

Private Music Lessons.

**OBOE 6901 Oboe 2 s.h.**

Private Music Lessons.

**OBOE 6902 Oboe 2 s.h.**

Private Music Lessons.

**OBOE 6903 Oboe 3 s.h.**

Private Music Lessons.

**OBOE 6904 Oboe 3 s.h.**

Private Music Lessons.

**OBOE 6905 Oboe 4 s.h.**

Private Music Lessons.

**OBOE 6906 Oboe 4 s.h.**

Private Music Lessons.

**ORGN 5800A Organ 1 s.h.**

Private Music Lessons.

**ORGN 5800B Organ 1 s.h.**

Private Music Lessons.

**ORGN 6901 Organ 2 s.h.**

Private Music Lessons.

**ORGN 6902 Organ 2 s.h.**

Private Music Lessons.

**ORGN 6903 Organ 3 s.h.**

Private Music Lessons.

**ORGN 6904 Organ 3 s.h.**

Private Music Lessons.

**ORGN 6905 Organ 4 s.h.**

Private Music Lessons.

**ORGN 6906 Organ 4 s.h.**

Private Music Lessons.

**PERC 5800A Percussion 1 s.h.**

Private Music Lessons.

**PERC 5800B Percussion 1 s.h.**

Private Music Lessons.

**PERC 6901 Percussion 2 s.h.**

Private Music Lessons.

**PERC 6902 Percussion 2 s.h.**

Private Music Lessons.

**PERC 6903 Percussion 3 s.h.**

Private Music Lessons.

**PERC 6904 Percussion 3 s.h.**

Private Music Lessons.

**PERC 6905 Percussion 4 s.h.**

Private Music Lessons.

**PERC 6906 Percussion 4 s.h.**

Private Music Lessons.

**PIAN 5800A Piano 1 s.h.**

Private Music Lessons.

**PIAN 5800B Piano 1 s.h.**

Private Music Lessons.

**PIAN 6901 Piano 2 s.h.**

Private Music Lessons.

**PIAN 6902 Piano 2 s.h.**

Private Music Lessons.

**PIAN 6903 Piano 3 s.h.**

Private Music Lessons.

**PIAN 6904 Piano 3 s.h.**

Private Music Lessons.

**PIAN 6905 Piano 4 s.h.**

Private Music Lessons.

**PIAN 6906 Piano 4 s.h.**

Private Music Lessons.

**SAX 5800A Saxophone 1 s.h.**

Private Music Lessons.

**SAX 5800B Saxophone 1 s.h.**  
Private Music Lessons.

**SAX 6901 Saxophone 2 s.h.**  
Private Music Lessons.

**SAX 6902 Saxophone 2 s.h.**  
Private Music Lessons.

**SAX 6903 Saxophone 3 s.h.**  
Private Music Lessons.

**SAX 6904 Saxophone 3 s.h.**  
Private Music Lessons.

**SAX 6905 Saxophone 4 s.h.**  
Private Music Lessons.

**SAX 6906 Saxophone 4 s.h.**  
Private Music Lessons.

**SBSS 5800A String Bass 1 s.h.**  
Private Music Lessons.

**SBSS 5800B String Bass 1 s.h.**  
Private Music Lessons.

**SBSS 6901 String Bass 2 s.h.**  
Private Music Lessons.

**SBSS 6902 String Bass 2 s.h.**  
Private Music Lessons.

**SBSS 6903 String Bass 3 s.h.**  
Private Music Lessons.

**SBSS 6904 String Bass 3 s.h.**  
Private Music Lessons.

**SBSS 6905 String Bass 4 s.h.**  
Private Music Lessons.

**SBSS 6906 String Bass 4 s.h.**  
Private Music Lessons.

**TROM 5800A Trombone 1 s.h.**  
Private Music Lessons.

**TROM 5800B Trombone 1 s.h.**  
Private Music Lessons.

**TROM 6901 Trombone 2 s.h.**  
Private Music Lessons.

**TROM 6902 Trombone 2 s.h.**  
Private Music Lessons.

**TROM 6903 Trombone 3 s.h.**  
Private Music Lessons.

**TROM 6904 Trombone 3 s.h.**  
Private Music Lessons.

**TROM 6905 Trombone 4 s.h.**  
Private Music Lessons.

**TROM 6906 Trombone 4 s.h.**  
Private Music Lessons.

**TRUM 5800A Trumpet 1 s.h.**  
Private Music Lessons.

**TRUM 5800B Trumpet 1 s.h.**  
Private Music Lessons.

**TRUM 6901 Trumpet 2 s.h.**  
Private Music Lessons.

**TRUM 6902 Trumpet 2 s.h.**  
Private Music Lessons.

**TRUM 6903 Trumpet 3 s.h.**  
Private Music Lessons.

**TRUM 6904 Trumpet 3 s.h.**  
Private Music Lessons.

**TRUM 6905 Trumpet 4 s.h.**  
Private Music Lessons.

**TRUM 6906 Trumpet 4 s.h.**  
Private Music Lessons.

**TUBA 5800A Tuba 1 s.h.**  
Private Music Lessons.

**TUBA 5800B Tuba 1 s.h.**  
Private Music Lessons.

**TUBA 6901 Tuba 2 s.h.**  
Private Music Lessons.

**TUBA 6902 Tuba 2 s.h.**  
Private Music Lessons.

**TUBA 6903 Tuba 3 s.h.**  
Private Music Lessons.

**TUBA 6904 Tuba 3 s.h.**  
Private Music Lessons.

**TUBA 6905 Tuba 4 s.h.**  
Private Music Lessons.

**TUBA 6906 Tuba 4 s.h.**  
Private Music Lessons.

**VIOL 5800A Viola 1 s.h.**  
Private Music Lessons.

**VIOL 5800B Viola 1 s.h.**  
Private Music Lessons.

**VIOL 6901 Viola 2 s.h.**  
Private Music Lessons.

**VIOL 6902 Viola 2 s.h.**  
Private Music Lessons.

**VIOL 6903 Viola 3 s.h.**  
Private Music Lessons.

**VIOL 6904 Viola 3 s.h.**  
Private Music Lessons.

**VIOL 6905 Viola 4 s.h.**  
Private Music Lessons.

**VIOL 6906 Viola 4 s.h.**  
Private Music Lessons.

**VION 5800A Violin 1 s.h.**  
Private Music Lessons.

**VION 5800B Violin 1 s.h.**  
Private Music Lessons.

**VION 6901 Violin 2 s.h.**  
Private Music Lessons.

**VION 6902 Violin 2 s.h.**  
Private Music Lessons.

**VION 6903 Violin 3 s.h.**  
Private Music Lessons.

**VION 6904 Violin 3 s.h.**  
Private Music Lessons.

**VION 6905 Violin 4 s.h.**  
Private Music Lessons.

**VION 6906 Violin 4 s.h.**  
Private Music Lessons.

**VOIC 5800A Voice 1 s.h.**  
Private Music Lessons.

**VOIC 5800B Voice 1 s.h.**

Private Music Lessons.

**VOIC 6901 Voice 2 s.h.**

Private Music Lessons.

**VOIC 6902 Voice 2 s.h.**

Private Music Lessons.

**VOIC 6903 Voice 3 s.h.**

Private Music Lessons.

**VOIC 6904 Voice 3 s.h.**

Private Music Lessons.

**VOIC 6905 Voice 4 s.h.**

Private Music Lessons.

**VOIC 6906 Voice 4 s.h.**

Private Music Lessons.

## Music Education

- Completion of all requirements outlined in respective courses of study.
- Students who fail to meet the standards set by the School of Music may, upon recommendation of the Dana Graduate Committee, be required to withdraw at the end of the semester. Any student with an overall grade-point average below 3.0 (i.e. not in good standing) for two consecutive semesters shall be dismissed from the master's program in music.
- An entrance examination and a final qualifying examination is required of all M.M candidates. Students who pass the theory entrance exam will qualify to test out of 6921 Graduate Analysis I. All students will take three core required courses (6977 Philosophies of Music, 6922 Graduate Analysis II, 6960 Research in Music).
- Students who require a thesis (MUHL, MUTC and jazz studies) will do an oral examination on the thesis as well as take an exit examination comprised of three questions covering the content from at least one core required course and at least on specialized seminar. Music education majors electing the non-thesis option will only be required to complete the exit examination. Procedural regulations governing the final qualifying examination are available from the Coordinator of Graduate Studies in Music.
- Thesis students who have completed MUHL 6990 Thesis 1 and MUHL 6991 Thesis 2, (2+2 s.h.), and have completed all course requirements but have not defended the thesis are required to maintain current student status if they expect to receive advisor or committee assistance or utilize University services (e.g., library, computer, parking, and so forth). This can be accomplished by registering for one hour of MUHL 6991 Thesis 2.

COURSE	TITLE	S.H.
Music Education (C) <sup>1</sup>		9
MUED 6970	Foundations of Music Education	3
MUED 6978	Contemporary Trends in Music Education	3
Music history/music theory electives (A/B/E)		9
5800- or 6900-level applied electives (A-F)		5
MUED 6977	Philosophies of Music	3
MUED 6960	Research in Music	3
MUTC 6922	Graduate Analysis 2	3
Music education majors may count up to four semester hours of S/U graded workshops toward degree fulfillment <sup>1</sup>		
<b>Total Semester Hours</b>		<b>38</b>

See list below:

- (A) Courses to be selected from List A  
 (B) Courses to be selected from List B  
 (C) Courses to be selected from List C  
 (D) Courses to be selected from List D

(E) Courses to be selected from List E

(F) May include up to two semester hours of ensemble courses and up to four additional semester hours of applied music courses. Selection is subject to results of entrance placement examination in music theory and music history. All music electives must be approved by the advisor.

COURSE	TITLE	S.H.
<b>Music Theory and Composition (A)</b>		
MUTC 5821 & MUTC 5822	Composition for Minors and Composition for Minors	4
MUTC 5828	Music Technology	3
MUTC 5830	Materials of 20th Century Music	3
MUTC 5831	Modal Counterpoint	3
MUTC 5832	Tonal Counterpoint	3
MUTC 5833	Theory Seminar	3
MUTC 5834	Electronic Music	3
MUTC 6903 & MUTC 6904	Advanced Composition and Advanced Composition	6
MUTC 6913	Pedagogy of Theory	3
MUTC 6916	Fugue	3
MUTC 6921 & MUTC 6922	Graduate Analysis 1 and Graduate Analysis 2	6
MUTC 6930 & MUTC 6931 & MUTC 6932 & MUTC 6933	Baroque Music Styles and Classic Music Styles and Romantic Music Styles and Twentieth-Century Music Styles	12
MUTC 6935	Jazz Theory	3
MUTC 6936	Jazz Composition	3
<b>Music History (B)</b>		
MUHL 5871	Baroque Music	3
MUHL 5872	Eighteenth Century and the Viennese Classical School	3
MUHL 5873	Opera History	3
MUHL 5874	Nineteenth Century	3
MUHL 5878	Selected Topics in Music History	3
MUHL 6940	Music in the Middle Ages	3
MUHL 6941	Music in the Renaissance	3
MUHL 6943	Seminar in Musicology	3
MUHL 6946	Selected Topics in Jazz History	3
<b>Music Education (C)</b>		
MUED 5814	Selected Topics in Music Education	2
MUED 5841	Music Workshop	1-3
MUED 6970	Foundations of Music Education	3
MUED 6972	Seminar in Music Education	3
MUED 6975	Music and the Humanities	3
MUED 6976	Directed Study in Conducting	3
MUED 6978	Contemporary Trends in Music Education	3
MUED 6979	Workshop in Music Education	1-3
MUED 6981	Elementary School Music Practicum	3
MUED 6982	Secondary School Music Practicum	3
<b>Pedagogy (D)</b>		
MUED 5858	Piano Pedagogy	3
MUED 5880	Vocal Pedagogy	1
MUSIC 6913	Pedagogy of Theory	3
<b>Music Literature (E)</b>		
MUED 6950	Conducting Pedagogy	2
MUHL 5860	Keyboard Literature	3
MUHL 5879	Vocal Literature	3
MUHL 6944	Seminar in Symphonic Literature	3
MUHL 6945	Selected Topics in Music Literature	3

**Music Electives (F)**

MUED 6973	Research Methods and Materials in Music Education	3
MUHL 6990	Thesis 1	2
MUHL 6991	Thesis 2	2
MUED 6992	Independent Projects in Music	1-4

**Learning Outcomes**

1. Students will demonstrate an understanding of specialized knowledge of at least one era of Music History (MUHL). Assessment: EXIT EXAM
2. Students will demonstrate an understanding of specialized knowledge of at least one aspect of Music Theory (MUTC). Assessment: EXIT EXAM
3. Students will demonstrate research skills and techniques through the creation of an original scholarly project. Assessment: RUB RIC / FINAL ASSIGNMENT 6942 or 6973
4. Students will demonstrate the ability to write in a scholarly manner about their area of specialization within music. Assessment: RUBRIC / RECITAL DOCUMENT, THESIS, OR FINAL PROJECT IN 6973.

**Music Performance**

- Completion of all requirements outlined in respective courses of study.
- Students who fail to meet the standards set by the School of Music may, upon recommendation of the Dana Graduate Committee, will be required to withdraw at the end of the semester. Any student with an overall grade-point average below 3.0 (i.e. not in good standing) for two consecutive semesters shall be dismissed from the master's program in music.
- An entrance examination and a final qualifying examination is required of all M.M candidates. Students who pass the theory entrance exam will qualify to test out of 6921 Graduate Analysis I. All students will take three core required courses (6977 Philosophies of Music, 6922 Graduate Analysis II, 6960 Research in Music).
- Students who require a thesis (MUHL, MUTC and jazz studies) will do an oral examination on the thesis as well as take an exit examination comprised of three questions covering the content from at least one core required course and at least on specialized seminar. Performance majors will submit a document supporting the recital in lieu of a thesis, and will also complete the exit examination. Procedural regulations governing the final qualifying examination are available from the Coordinator of Graduate Studies in Music.
- Thesis students who have completed MUHL 6990 Thesis 1 and MUHL 6991 Thesis 2, (2+2 s.h.), and have completed all course requirements but have not defended the thesis are required to maintain current student status if they expect to receive advisor or committee assistance or utilize University services (e.g., library, computer, parking, and so forth). This can be accomplished by registering for one hour of MUHL 6991 Thesis 2.

COURSE	TITLE	S.H.
6900 level applied <sup>1</sup>		12
Music History/music theory electives (A/B/E) <sup>2</sup>		9
Music Literature (F)		3
Music Electives (A-F)		5
MUHL 6977	Philosophies of Music	3
MUHL 6960	Research in Music	3
MUTC 6922	Graduate Analysis 2	3

Conducting majors must take four semester hours of vocal or instrumental applied and eight semester hours of applied conducting.<sup>1</sup>

Both areas must be represented in the coursework.<sup>2</sup>

**Total Semester Hours** **38**

See Lists below:

(A) Courses to be selected from List A

(B) Courses to be selected from List B

(C) Courses to be selected from List C

(D) Courses to be selected from List D

(E) Courses to be selected from List E

(F) May include up to two semester hours of ensemble courses and up to four additional semester hours of applied music courses. Selection is subject to results of entrance placement examination in music theory and music history. All music electives must be approved by the advisor.

COURSE	TITLE	S.H.
<b>Music Theory and Composition (A)</b>		
MUTC 5821 & MUTC 5822	Composition for Minors and Composition for Minors	4
MUTC 5828	Music Technology	3
MUTC 5830	Materials of 20th Century Music	3
MUTC 5831	Modal Counterpoint	3
MUTC 5832	Tonal Counterpoint	3
MUTC 5833	Theory Seminar	3
MUTC 5834	Electronic Music	3
MUTC 6903 & MUTC 6904	Advanced Composition and Advanced Composition	6
MUTC 6913	Pedagogy of Theory	3
MUTC 6916	Fugue	3
MUTC 6921 & MUTC 6922	Graduate Analysis 1 and Graduate Analysis 2	6
MUTC 6930 & MUTC 6931 & MUTC 6932 & MUTC 6933	Baroque Music Styles and Classic Music Styles and Romantic Music Styles and Twentieth-Century Music Styles	12
MUTC 6935	Jazz Theory	3
MUTC 6936	Jazz Composition	3
<b>Music History (B)</b>		
MUHL 5871	Baroque Music	3
MUHL 5872	Eighteenth Century and the Viennese Classical School	3
MUHL 5873	Opera History	3
MUHL 5874	Nineteenth Century	3
MUHL 5878	Selected Topics in Music History	3
MUHL 6940	Music in the Middle Ages	3
MUHL 6941	Music in the Renaissance	3
MUHL 6943	Seminar in Musicology	3
MUHL 6946	Selected Topics in Jazz History	3
<b>Music Education (C)</b>		
MUED 5814	Selected Topics in Music Education	2
MUED 5841	Music Workshop	1-3
MUED 6970	Foundations of Music Education	3
MUED 6972	Seminar in Music Education	3
MUED 6975	Music and the Humanities	3
MUED 6976	Directed Study in Conducting	3
MUED 6978	Contemporary Trends in Music Education	3
MUED 6979	Workshop in Music Education	1-3
MUED 6981	Elementary School Music Practicum	3
MUED 6982	Secondary School Music Practicum	3
<b>Pedagogy (D)</b>		
MUED 5858	Piano Pedagogy	3
MUED 5880	Vocal Pedagogy	1
MUSIC 6913	Pedagogy of Theory	3
<b>Music Literature (E)</b>		
MUED 6950	Conducting Pedagogy	2
MUHL 5860	Keyboard Literature	3

MUHL 5879	Vocal Literature	3
MUHL 6944	Seminar in Symphonic Literature	3
MUHL 6945	Selected Topics in Music Literature	3
<b>Music Electives (F)</b>		
MUED 6973	Research Methods and Materials in Music Education	3
MUHL 6990	Thesis 1	2
MUHL 6991	Thesis 2	2
MUED 6992	Independent Projects in Music	1-4

(A) Courses to be selected from List A  
 (B) Courses to be selected from List B  
 (C) Courses to be selected from List C  
 (D) Courses to be selected from List D  
 (E) Courses to be selected from List E  
 (F) May include up to two semester hours of ensemble courses and up to four additional semester hours of applied music courses. Selection is subject to results of entrance placement examination in music theory and music history. All music electives must be approved by the advisor.

## Learning Outcomes

- Students will demonstrate an understanding of specialized knowledge of at least one era of Music History (MUHL). Assessment: EXIT EXAM
- Students will demonstrate an understanding of specialized knowledge of at least one aspect of Music Theory (MUTC). Assessment: EXIT EXAM
- Students will demonstrate research skills and techniques through the creation of an original scholarly project. Assessment: RUBRIC / FINAL ASSIGNMENT 6942 or 6973
- Students will demonstrate the ability to write in a scholarly manner about their area of specialization within music. Assessment: RUBRIC / RECITAL DOCUMENT, THESIS, OR FINAL PROJECT IN 6973.

## Music Theory and Composition

- Completion of all requirements outlined in respective courses of study.
- Students who fail to meet the standards set by the School of Music may, upon recommendation of the Dana Graduate Committee, will be required to withdraw at the end of the semester. Any student with an overall grade-point average below 3.0 (i.e. not in good standing) for two consecutive semesters shall be dismissed from the master's program in music.
- An entrance examination and a final qualifying examination is required of all M.M candidates. Students who pass the theory entrance exam will qualify to test out of 6921 Graduate Analysis I. All students will take three core required courses (6977 Philosophies of Music, 6922 Graduate Analysis II, 6960 Research in Music).
- Students who require a thesis (MUHL, MUTC and jazz studies) will do an oral examination on the thesis as well as take an exit examination comprised of three questions covering the content from at least one core required course and at least on specialized seminar. Procedural regulations governing the final qualifying examination are available from the Coordinator of Graduate Studies in Music.
- Thesis students who have completed MUHL 6990 Thesis 1 and MUHL 6991 Thesis 2, (2+2 s.h.), and have completed all course requirements but have not defended the thesis are required to maintain current student status if they expect to receive advisor or committee assistance or utilize University services (e.g., library, computer, parking, and so forth). This can be accomplished by registering for one hour of MUHL 6991 Thesis 2.

COURSE	TITLE	S.H.
Music Theory (A) <sup>1</sup>		15
Music History (B/E)		7
5800- or 6900-level applied (A-F)		7
MUHL 6990	Thesis 1	2
MUHL 6991	Thesis 2	1-2
MUHL 6977	Philosophies of Music	3
MUHL 6960	Research in Music	3
MUTC 6922	Graduate Analysis 2	3

Students in the theory emphasis should take MUSIC 6913 Pedagogy of Theory<sup>1</sup>

**Total Semester Hours**

**41-42**

See lists below:

COURSE	TITLE	S.H.
<b>Music Theory and Composition (A)</b>		
MUTC 5821 & MUTC 5822	Composition for Minors and Composition for Minors	4
MUTC 5828	Music Technology	3
MUTC 5830	Materials of 20th Century Music	3
MUTC 5831	Modal Counterpoint	3
MUTC 5832	Tonal Counterpoint	3
MUTC 5833	Theory Seminar	3
MUTC 5834	Electronic Music	3
MUTC 6903 & MUTC 6904	Advanced Composition and Advanced Composition	6
MUTC 6913	Pedagogy of Theory	3
MUTC 6916	Fugue	3
MUTC 6921 & MUTC 6922	Graduate Analysis 1 and Graduate Analysis 2	6
MUTC 6930 & MUTC 6931 & MUTC 6932 & MUTC 6933	Baroque Music Styles and Classic Music Styles and Romantic Music Styles and Twentieth-Century Music Styles	12
MUTC 6935	Jazz Theory	3
MUTC 6936	Jazz Composition	3
<b>Music History (B)</b>		
MUHL 5871	Baroque Music	3
MUHL 5872	Eighteenth Century and the Viennese Classical School	3
MUHL 5873	Opera History	3
MUHL 5874	Nineteenth Century	3
MUHL 5878	Selected Topics in Music History	3
MUHL 6940	Music in the Middle Ages	3
MUHL 6941	Music in the Renaissance	3
MUHL 6943	Seminar in Musicology	3
MUHL 6946	Selected Topics in Jazz History	3
<b>Music Education (C)</b>		
MUED 5814	Selected Topics in Music Education	2
MUED 5841	Music Workshop	1-3
MUED 6970	Foundations of Music Education	3
MUED 6972	Seminar in Music Education	3
MUED 6975	Music and the Humanities	3
MUED 6976	Directed Study in Conducting	3
MUED 6978	Contemporary Trends in Music Education	3
MUED 6979	Workshop in Music Education	1-3
MUED 6981	Elementary School Music Practicum	3
MUED 6982	Secondary School Music Practicum	3
<b>Pedagogy (D)</b>		
MUED 5858	Piano Pedagogy	3
MUED 5880	Vocal Pedagogy	1
MUSIC 6913	Pedagogy of Theory	3
<b>Music Literature (E)</b>		
MUED 6950	Conducting Pedagogy	2

MUHL 5860	Keyboard Literature	3
MUHL 5879	Vocal Literature	3
MUHL 6944	Seminar in Symphonic Literature	3
MUHL 6945	Selected Topics in Music Literature	3
<b>Music Electives (F)</b>		
MUED 6973	Research Methods and Materials in Music Education	3
MUHL 6990	Thesis 1	2
MUHL 6991	Thesis 2	2
MUED 6992	Independent Projects in Music	1-4

## Learning Outcomes

1. Students will demonstrate an understanding of specialized knowledge of at least one era of Music History (MUHL). Assessment: EXIT EXAM
2. Students will demonstrate an understanding of specialized knowledge of at least one aspect of Music Theory (MUTC). Assessment: EXIT EXAM
3. Students will demonstrate research skills and techniques through the creation of an original scholarly project. Assessment: RUB RIC / FINAL ASSIGNMENT 6942 or 6973
4. Students will demonstrate the ability to write in a scholarly manner about their area of specialization within music. Assessment: RUBRIC / RECITAL DOCUMENT, THESIS, OR FINAL PROJECT IN 6973.

## Jazz Studies

- Completion of all requirements outlined in respective courses of study.
- Students who fail to meet the standards set by the School of Music may, upon recommendation of the Dana Graduate Committee, will be required to withdraw at the end of the semester. Any student with an overall grade-point average below 3.0 (i.e. not in good standing) for two consecutive semesters shall be dismissed from the master's program in music.
- An entrance examination and a final qualifying examination is required of all M.M candidates. Students who pass the theory entrance exam will qualify to test out of 6921 Graduate Analysis I. All students will take three core required courses (6977 Philosophies of Music, 6922 Graduate Analysis II, 6960 Research in Music).
- Students who require a thesis (MUHL, MUTC and jazz studies) will do an oral examination on the thesis as well as take an exit examination comprised of three questions covering the content from at least one core required course and at least on specialized seminar. Procedural regulations governing the final qualifying examination are available from the Coordinator of Graduate Studies in Music.
- Thesis students who have completed MUHL 6990 Thesis 1 and MUHL 6991 Thesis 2, (2+2 s.h.), and have completed all course requirements but have not defended the thesis are required to maintain current student status if they expect to receive advisor or committee assistance or utilize University services (e.g., library, computer, parking, and so forth). This can be accomplished by registering for one hour of MUHL 6991 Thesis 2.

COURSE	TITLE	S.H.
MUTC 6935	Jazz Theory	3
MUTC 6936	Jazz Composition	3
MUHL 6946	Selected Topics in Jazz History	3
Music Theory (A)		3
Music History (B/E)		3
Jazz Ensemble		2
Jazz Combo		2
Applied study or electives (A-F) <sup>1</sup>		6
MUHL 6977	Philosophies of Music	3
MUHL 6960	Research in Music	3
MUTC 6922	Graduate Analysis 2	3

Must represent two areas. <sup>1</sup>

**Total Semester Hours** **34**

See lists below:

- (A) Courses to be selected from List A  
 (B) Courses to be selected from List B  
 (C) Courses to be selected from List C  
 (D) Courses to be selected from List D  
 (E) Courses to be selected from List E  
 (F) May include up to two semester hours of ensemble courses and up to four additional semester hours of applied music courses. Selection is subject to results of entrance placement examination in music theory and music history. All music electives must be approved by the advisor.

COURSE	TITLE	S.H.
<b>Music Theory and Composition (A)</b>		
MUTC 5821 & MUTC 5822	Composition for Minors and Composition for Minors	4
MUTC 5828	Music Technology	3
MUTC 5830	Materials of 20th Century Music	3
MUTC 5831	Modal Counterpoint	3
MUTC 5832	Tonal Counterpoint	3
MUTC 5833	Theory Seminar	3
MUTC 5834	Electronic Music	3
MUTC 6903 & MUTC 6904	Advanced Composition and Advanced Composition	6
MUTC 6913	Pedagogy of Theory	3
MUTC 6916	Fugue	3
MUTC 6921 & MUTC 6922	Graduate Analysis 1 and Graduate Analysis 2	6
MUTC 6930 & MUTC 6931 & MUTC 6932 & MUTC 6933	Baroque Music Styles and Classic Music Styles and Romantic Music Styles and Twentieth-Century Music Styles	12
MUTC 6935	Jazz Theory	3
MUTC 6936	Jazz Composition	3
<b>Music History (B)</b>		
MUHL 5871	Baroque Music	3
MUHL 5872	Eighteenth Century and the Viennese Classical School	3
MUHL 5873	Opera History	3
MUHL 5874	Nineteenth Century	3
MUHL 5878	Selected Topics in Music History	3
MUHL 6940	Music in the Middle Ages	3
MUHL 6941	Music in the Renaissance	3
MUHL 6943	Seminar in Musicology	3
MUHL 6946	Selected Topics in Jazz History	3
<b>Music Education (C)</b>		
MUED 5814	Selected Topics in Music Education	2
MUED 5841	Music Workshop	1-3
MUED 6970	Foundations of Music Education	3
MUED 6972	Seminar in Music Education	3
MUED 6975	Music and the Humanities	3
MUED 6976	Directed Study in Conducting	3
MUED 6978	Contemporary Trends in Music Education	3
MUED 6979	Workshop in Music Education	1-3
MUED 6981	Elementary School Music Practicum	3
MUED 6982	Secondary School Music Practicum	3
<b>Pedagogy (D)</b>		
MUED 5858	Piano Pedagogy	3



MUED 5880	Vocal Pedagogy	1
MUSIC 6913	Pedagogy of Theory	3
<b>Music Literature (E)</b>		
MUED 6950	Conducting Pedagogy	2
MUHL 5860	Keyboard Literature	3
MUHL 5879	Vocal Literature	3
MUHL 6944	Seminar in Symphonic Literature	3
MUHL 6945	Selected Topics in Music Literature	3
<b>Music Electives (F)</b>		
MUED 6973	Research Methods and Materials in Music Education	3
MUHL 6990	Thesis 1	2
MUHL 6991	Thesis 2	2
MUED 6992	Independent Projects in Music	1-4

## Learning Outcomes

1. Students will demonstrate an understanding of specialized knowledge of at least one era of Music History (MUHL). Assessment: EXIT EXAM
2. Students will demonstrate an understanding of specialized knowledge of at least one aspect of Music Theory (MUTC). Assessment: EXIT EXAM
3. Students will demonstrate research skills and techniques through the creation of an original scholarly project. Assessment: RUB RIC / FINAL ASSIGNMENT 6942 or 6973
4. Students will demonstrate the ability to write in a scholarly manner about their area of specialization within music. Assessment: RUBRIC / RECITAL DOCUMENT, THESIS, OR FINAL PROJECT IN 6973.

## Music History and Literature

- Completion of all requirements outlined in respective courses of study.
- Students who fail to meet the standards set by the School of Music may, upon recommendation of the Dana Graduate Committee, be required to withdraw at the end of the semester. Any student with an overall grade-point average below 3.0 (i.e. not in good standing) for two consecutive semesters shall be dismissed from the master's program in music.
- An entrance examination and a final qualifying examination is required of all M.M candidates. Students who pass the theory entrance exam will qualify to test out of 6921 Graduate Analysis I. All students will take three core required courses (6977 Philosophies of Music, 6922 Graduate Analysis II, 6960 Research in Music).
- Students who require a thesis (MUHL, MUTC and jazz studies) will do an oral examination on the thesis as well as take an exit examination comprised of three questions covering the content from at least one core required course and at least on specialized seminar. Procedural regulations governing the final qualifying examination are available from the Coordinator of Graduate Studies in Music.
- Thesis students who have completed MUHL 6990 Thesis 1 and MUHL 6991 Thesis 2, (2+2 s.h.), and have completed all course requirements but have not defended the thesis are required to maintain current student status if they expect to receive advisor or committee assistance or utilize University services (e.g., library, computer, parking, and so forth). This can be accomplished by registering for one hour of MUHL 6991 Thesis 2.

COURSE	TITLE	S.H.
Music History/Literature (B/E)		15
Music Theory (A)		3
5800- or 6900-level applied or electives (A-F)		7
MUHL 6990	Thesis 1	2
MUHL 6991	Thesis 2	1-2
MUHL 6977	Philosophies of Music	3
MUHL 6960	Research in Music	3

MUTC 6922	Graduate Analysis 2	3
<b>Total Semester Hours</b>		<b>37-38</b>

See lists below:

- (A) Courses to be selected from List A  
 (B) Courses to be selected from List B  
 (C) Courses to be selected from List C  
 (D) Courses to be selected from List D  
 (E) Courses to be selected from List E  
 (F) May include up to two semester hours of ensemble courses and up to four additional semester hours of applied music courses. Selection is subject to results of entrance placement examination in music theory and music history. All music electives must be approved by the advisor.

COURSE	TITLE	S.H.
<b>Music Theory and Composition (A)</b>		
MUTC 5821 & MUTC 5822	Composition for Minors and Composition for Minors	4
MUTC 5828	Music Technology	3
MUTC 5830	Materials of 20th Century Music	3
MUTC 5831	Modal Counterpoint	3
MUTC 5832	Tonal Counterpoint	3
MUTC 5833	Theory Seminar	3
MUTC 5834	Electronic Music	3
MUTC 6903 & MUTC 6904	Advanced Composition and Advanced Composition	6
MUTC 6913	Pedagogy of Theory	3
MUTC 6916	Fugue	3
MUTC 6921 & MUTC 6922	Graduate Analysis 1 and Graduate Analysis 2	6
MUTC 6930 & MUTC 6931 & MUTC 6932 & MUTC 6933	Baroque Music Styles and Classic Music Styles and Romantic Music Styles and Twentieth-Century Music Styles	12
MUTC 6935	Jazz Theory	3
MUTC 6936	Jazz Composition	3
<b>Music History (B)</b>		
MUHL 5871	Baroque Music	3
MUHL 5872	Eighteenth Century and the Viennese Classical School	3
MUHL 5873	Opera History	3
MUHL 5874	Nineteenth Century	3
MUHL 5878	Selected Topics in Music History	3
MUHL 6940	Music in the Middle Ages	3
MUHL 6941	Music in the Renaissance	3
MUHL 6943	Seminar in Musicology	3
MUHL 6946	Selected Topics in Jazz History	3
<b>Music Education (C)</b>		
MUED 5814	Selected Topics in Music Education	2
MUED 5841	Music Workshop	1-3
MUED 6970	Foundations of Music Education	3
MUED 6972	Seminar in Music Education	3
MUED 6975	Music and the Humanities	3
MUED 6976	Directed Study in Conducting	3
MUED 6978	Contemporary Trends in Music Education	3
MUED 6979	Workshop in Music Education	1-3
MUED 6981	Elementary School Music Practicum	3
MUED 6982	Secondary School Music Practicum	3
<b>Pedagogy (D)</b>		
MUED 5858	Piano Pedagogy	3

MUED 5880	Vocal Pedagogy	1
MUSIC 6913	Pedagogy of Theory	3
<b>Music Literature (E)</b>		
MUED 6950	Conducting Pedagogy	2
MUHL 5860	Keyboard Literature	3
MUHL 5879	Vocal Literature	3
MUHL 6944	Seminar in Symphonic Literature	3
MUHL 6945	Selected Topics in Music Literature	3
<b>Music Electives (F)</b>		
MUED 6973	Research Methods and Materials in Music Education	3
MUHL 6990	Thesis 1	2
MUHL 6991	Thesis 2	2
MUED 6992	Independent Projects in Music	1-4

## Learning Outcomes

1. Students will demonstrate an understanding of specialized knowledge of at least one era of Music History (MUHL). Assessment: EXIT EXAM
2. Students will demonstrate an understanding of specialized knowledge of at least one aspect of Music Theory (MUTC). Assessment: EXIT EXAM
3. Students will demonstrate research skills and techniques through the creation of an original scholarly project. Assessment: RUB RIC / FINAL ASSIGNMENT 6942 or 6973
4. Students will demonstrate the ability to write in a scholarly manner about their area of specialization within music. Assessment: RUBRIC / RECITAL DOCUMENT, THESIS, OR FINAL PROJECT IN 6973.

## Master of Public Health

### Program Directors

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### Program Description

The Master of Public Health program at Youngstown State University is part of Consortium of Eastern Ohio Master of Public Health (CEOMPH). CEOMPH is a multidisciplinary, interdepartmental, and interinstitutional program that provides opportunities for graduate studies in public health. It is housed in the Bitonte College of Health and Human Services. Although the M.P.H. degree is awarded by Youngstown State University, the M.P.H. program is consortium-based. It draws its faculty from several departments at The University of Akron, Cleveland State University, the Northeastern Ohio Medical University (NEOMED), Ohio University, and Youngstown State University.

The mission of the Consortium of Eastern Ohio Master of Public Health program is to provide accredited public health education designed for the working professional. It does this through a collaborative learning community, drawing on the collective resources of its five member institutions and partnering community agencies. The program strives to produce respected and competent professionals able to improve public health practice, especially in eastern Ohio. Other unique features of the program include the use of distance learning and Saturday course offerings, which accommodate the typical professional student's work schedule.

The program is structured as a weekend college program with core courses scheduled on Saturdays from 9:00 a.m. to 4:00 p.m. Alternate scheduling

will be considered to accommodate students with special circumstances. Students take core courses at any one of the distance learning sites on the participating campuses. Electives are taken at The University of Akron, Cleveland State University, NEOMED, Ohio University, or YSU. Electives are taken on the campus where they are being offered and may be taken anytime during the program.

## 4+ 1 Bachelor of Science in Applied Science/Master of Public Health Program

The accelerated "4+ 1 + program allows students to earn the Master of Public Health degree in one year after completing their Bachelor's degree. Undergraduate students can apply for admission into the accelerated program after completing 78 semester hours with a GPA of 3.3 or higher. While in the accelerated program, students must maintain a 3.0 GPA. Students can take a maximum of twelve semester hours of graduate work that can count both towards the Bachelor's degree and Master of Public Health degree.

## Admission Requirements

In addition to the minimum College of Graduate Studies admission requirements, applicants must hold a bachelor's degree from an accredited college or university, with a minimum GPA of 2.75. Applicants must have successfully completed a college-level mathematics or statistics course, and a college social science or natural science course, and have acceptable GRE scores within the last five years.

GRE scores may be waived if the applicant has a professional degree (master's or doctorate) in a relevant area. Official results from other equivalent standardized tests used for graduate admissions, also taken within the last five years, may be substituted. These accepted tests are the following: DAT, GMAT, MCAT, and PCAT. Please use institution code #1903 in the designated area of your GRE application form. TOEFL is required from applicants from countries where English is not the language of instruction; the minimum score must be 550 (paper-based) or 213 (computer-based) or 79-80 with read/speak/listen=17, write=14 (Internet-based). Please use the institution code #1903 in the designated area on your TOEFL application form.

Two years of work experience in a relevant field is highly recommended. The applicant must provide three letters of recommendation from individuals familiar with the applicant's academic or professional background. If the applicant has not been involved in an academic institution for two years or more, he or she may submit letters of recommendation by supervisors from his or her place of employment. The letters should include an assessment of the applicant's current work quality and ability to successfully complete graduate training. Letters are to be mailed to the following address:

M.P.H. Admissions Committee  
Consortium of Eastern Ohio Master of Public Health  
NEOMED  
4209 State Route 44  
PO Box 95  
Rootstown, Ohio 44272

## Graduate Faculty

**Guang-Hwa (Andy) Chang**, Ph.D., Professor  
Biostatistics

**Alan M. Jacobs**, Ph.D., Professor  
Environmental health sciences in public health

**Rachael J. Pohle-Krauz**, Ph.D., Associate Professor  
Nutrition

**Keisha T. Robinson**, Dr.P.H., Associate Professor  
Epidemiology and health education/health promotion

## Degree Requirements

The curriculum consists of eight core courses, directed elective, required capstone project, and electives. In addition, a portfolio, and an exit presentation are required. Students should plan on taking the core courses as a cohort. Core courses will be offered on Saturdays, one course in the morning and one in the afternoon. Students may take core courses in any one of the distance learning classrooms at the partner universities. Distance learning will involve interactive electronic technology and web-based learning. Students may take electives at any time in the program, and may select an elective from any of the partner universities from a list of approved electives.

If the student is interested in an elective that is not on the approved list, an Elective Approval form must be submitted, along with the course syllabus, for review and approval by the CEOMPH Curriculum Committee:

CEOMPH Curriculum Committee  
Consortium of Eastern Ohio Master of Public Health  
NEOMED  
4209 State Route 44  
PO Box 95  
Rootstown, Ohio 44272

Students will be assigned an advisor upon entering the program. The advisor will offer guidance on choosing electives appropriate to student career goals and interest. Students must maintain a minimum GPA of 3.0. The program requires 42 semester hours to comply with accreditation criteria.

COURSE	TITLE	S.H.
<b>Core Courses</b>		
MPH 6901	Public Health Concepts	3
MPH 6902	Social and Behavioral Sciences in Public Health	3
MPH 6903	Epidemiology in Public Health	3
MPH 6904	Biostatistics in Public Health	3
MPH 6905	Health Services Administration in Public Health	3
MPH 6906	Environmental Health Sciences in Public Health	3
<b>Generalist Track</b>		
MPH 6907	Grant Writing in Public Health Practice	3
MPH 6908	Public Health Practice and Issues	3
MPH 6909	Public Health Research and Evaluation	3
<b>Electives</b>		
MPH 6994	Individual Investigation in Public Health	1-3
MPH 6996	MPH Practicum	3
Elective		3
<b>Required Project</b>		
MPH 6998	Capstone Project 1	3
MPH 6999	Capstone Project 2	3
<b>Total Semester Hours</b>		<b>42</b>

## Core Competencies

Use basic techniques and statistical software to access, evaluate, and interpret health data.

Apply analytic reasoning and methods.

Interpret scientific and statistical results, including the strengths and limitations of scientific articles.

Explain characteristics, strengths and limitations of epidemiological study design types.

Apply behavioral health theories/models in developing community health promotion and intervention programs, and applications for research funding.

Apply principles of strategic planning to public health, including continuous quality improvement, leadership, teamwork, systems thinking, and social marketing.

Assess associations found between environmental hazards and health outcomes to influence environmental policies designed to protect populations.

Apply principles of program planning, development, implementation, management, and evaluation in organizational and community initiatives.

Use collaborative strategies in the design of policies, interventions, and programs.

Communicate public health information to lay and professional audiences, using appropriate channels and technologies and with linguistic and cultural proficiency.

Demonstrate ability to use credible evidence and rationale to guide well-reasoned decisions, proposals, and attitudes.

Use individual, team and organizational learning opportunities for personal and professional development.

## Generalist Competencies

Prepare proposals for funding from external sources.

Demonstrate the ability to design, implement and execute a research protocol.

S.H. Consider the role of cultural and social factors in the planning and delivery of public health services and interventions.

Demonstrate critical evaluation of ethical values, theories, and principles that guide public health inquiry and decision-making.

Analyze the public health information infrastructure used to collect, process, maintain, and disseminate data in order to allow for decision-making at an administrative level.

Apply theory and strategy-based communication principles adapted to different contexts.

Explain how biological, chemical, and physical agents affect human health.

## Graduate Courses

### MPH 6901 Public Health Concepts 3 s.h.

Organizational structure, history, law, ethics, essential services, global problems, and future of public health.

**Prereq.:** Graduate standing, permission of course director required for non-MPH students.

### MPH 6902 Social and Behavioral Sciences in Public Health 3 s.h.

Theories of health education and promotion; intervention (communication, collaboration, and strategies): sociocultural, diversity, and regional issues as pertains to public health.

**Prereq.:** Graduate standing, permission of course director required for non-MPH students.

### MPH 6903 Epidemiology in Public Health 3 s.h.

Epidemiological methods, including study design, legal/ethical aspects, and Epi Info, applications of methods including screening, disease surveillance, outbreak investigation, and community needs assessment. Student presentations to focus on special topics such as infectious diseases, chronic conditions, etc.

**Prereq.:** Graduate standing, permission of course director required for non-MPH students.

**MPH 6904 Biostatistics in Public Health 3 s.h.**

Principles of biostatistics in the context of multiple public health applications, Epi Info, SAS, and JMP statistical packages to be used.

**Prereq.:** Graduate standing, permission of course director required for non-MPH students.

**MPH 6905 Health Services Administration in Public Health 3 s.h.**

Management principles, including personnel administration, budgeting, financing, and continuous quality improvement as pertains to public health. Planning and evaluation principles, grant writing, public health economics, public health policy, and data sources.

**Prereq.:** Graduate standing, permission of course director required for non-MPH students.

**MPH 6906 Environmental Health Sciences in Public Health 3 s.h.**

Air quality, water quality, food hygiene, sanitation, solid waste management, hazardous materials management, vector-borne disease, other special topics, occupational health, legal issues, environmental hazard identification and response.

**Prereq.:** Graduate standing, permission of course director required for non-MPH students.

**MPH 6907 Grant Writing in Public Health Practice 3 s.h.**

Methods and techniques for writing and managing grant proposals to support public health programs.

**Prereq.:** Permission of instructor required for non-MPH students.

**MPH 6908 Public Health Practice and Issues 3 s.h.**

In an organizational setting, the following topics will be explored: informatics and communication, diversity and cultural proficiency, ethics, and biology. These topics are emerging public health issues, which will be applied in a practice setting.

**Prereq.:** Graduate standing and MPH 6901.

**MPH 6909 Public Health Research and Evaluation 3 s.h.**

Students will critically review journal articles, create research questions, conduct comprehensive literature reviews, employ quantitative and qualitative research methods that fall within institutional review board parameters, develop and execute a data analysis plan. Culmination of coursework will be individual oral presentation and mock journal article.

**Prereq.:** Graduate standing; MPH 6903 and MPH 6904.

**MPH 6994 Individual Investigation in Public Health 1-3 s.h.**

Intensive research or readings on selected topic or problem to be selected in consultation with MPH graduate faculty.

**Prereq.:** MPH 6901 and MPH 6904.

**MPH 6995 Special Topics 1-5 s.h.**

Specialized sections selected by faculty will focus on specific topics of current interest to public health practice. May be repeated with different topics up to 15 semester hours.

**Prereq.:** Graduate standing, permission of program director required for non-MPH students.

**MPH 6996 MPH Practicum 3 s.h.**

Student is teamed with a faculty advisor and community preceptor(s) to work on a meaningful public health issue. For students who desire additional field experience. students.

**Prereq.:** Graduate standing, permission of program director required for non-MPH.

**MPH 6997 MPH Capstone Project 3-6 s.h.**

A faculty advisor and community preceptor(s) are teamed with each student who will develop a paper (i.e., grant, study, proposal) on a meaningful public health issue learned from the core MPH courses.

**Prereq.:** Graduate standing; MPH 6901, MPH 6902, MPH 6903, MPH 6904, MPH 6905, and MPH 6906.

**MPH 6998 Capstone Project 1 3 s.h.**

In-depth assessment of public health competencies and preparation for the culminating community experience in MPH Capstone II.

**Prereq.:** graduate standing; MPH 6901, MPH 6902, MPH 6903, MPH 6904, MPH 6905, and MPH 6906.

**MPH 6999 Capstone Project 2 3 s.h.**

A required culminating experience for MPH students to be taken after all core courses and MPH 6998 Capstone Project I are completed. In partnership with a community organization/agency.

**Prereq.:** graduate standing, MPH 6901, MPH 6902, MPH 6903, MPH 6904, MPH 6905, MPH 6906, and MPH 6998.

**MPH 7008 Schools and Health 3 s.h.**

Population focus survey of children's health issues and K-12 schools using CDC Coordinated School Program model as an organizing framework. Topics include school health policy, relationship of health and academic outcomes, and Youth Risk Behavioral Surveillance (YRBSS). Current research infused into the course.

**Cross-listed:** NURS 7008.

## Master of Respiratory Care Program Director

Dr. Kelly L. Colwell  
(330) 941-2631  
klcowell@ysu.edu

## Program Description

The Master of Respiratory Care program has been designed specifically for respiratory therapists who desire to enhance their career options in clinical and/or leadership roles within the respiratory care profession. The many resources available to respiratory care practitioners through key professional organizations are also integrated throughout the program. The core of the program builds on skills related to clinical research, grant writing, leadership development, and technology applications related to educational/administrative settings. Specialty tracks encourage the student to further develop their skill base in education, management, and advanced clinical applications.

## Admission Requirements

All respiratory care applicants must meet the following requirements:

- Regular admission requires a cumulative undergraduate grade-point average of at least 3.0 (on a 4.0 scale). Applicants with a cumulative undergraduate grade point average of 2.7 to 2.99 may be admitted provisionally. Applicants with a cumulative undergraduate grade point average of less than 2.7 will be required to submit an official report of the Graduate Record Examination (General Test) scores completed within the last five years for admission consideration.
- Current state license as a respiratory care practitioner
- National Board for Respiratory Care (NBRC) professional RRT (advanced practitioner) credential
- Membership in the American Association for Respiratory Care (AARC) in order to access data/projects that will be needed in academic coursework
- An (optional) personal interview and/or additional information as requested by the program's admission committee.
- Students not meeting regular admission requirements may be provisionally admitted. See the *Graduate Catalog* under Provisional Admission.

Applicants must submit the following items to Graduate Admissions:

- Official transcripts from each college or institution of higher learning attended (other than YSU)
- Three (3) letters of recommendation from individuals familiar with the applicant's academic or professional background
- A letter of intent stating one's professional goals and how graduate education in respiratory therapy will help fulfill said goals

- An official report of the Graduate Record Examination (General Test) scores completed within the past five years if the applicant's cumulative grade point average is less than 2.7

## Graduate Faculty

**Kelly Colwell**, Ed.D., Assistant Professor

Distance learning; improving patient and family health literacy through education for management of chronic asthma in children; improving access to healthcare in underserved areas; improving student awareness of the need for cultural competency to better understand, educate, and treat patients in a multi-diverse patient population

**Amanda Roby**, M.H.H.S., Assistant Professor

**Salvatore Sanders**, Ph.D., Professor

Technology applications for health care, education and management; student and faculty attributes related to learning; instructional design; distance learning

**Mary Yacovone**, M.Ed., Associate Professor

## Degree Requirements

COURSE	TITLE	S.H.
<b>Required Core Courses 27 sh</b>		
RESC 6900	The Respiratory Care Profession	3
RESC 6906	Respiratory Care Seminar	3
RESC 6908	Leadership Development in Respiratory Care	3
RESC 6910	Competency Assessment in Respiratory Care	3
RESC 6915	Education and Accreditation in Respiratory Care	3
RESC 6920	Technology Applications for Health and Human Services	3
RESC 6950	Respiratory Care Research	3
CJFS 6942	Research and Statistics in Health and Human Services	3
HHS 6981	Grant Writing	3
<b>Recommended Electives 3 sh</b>		
RESC 6922	Special Topics in Respiratory Care	1-3
RESC 6930	Managing Respiratory Services	3
HHS 6922	Planning and Fiscal Management	4
HHS 6950	Professional Codes in Healthcare	3
HHS 6958	Health Services Issues	3
AHLT 5807	Epidemiology	3
AHLT 5816	Environmental Regulations	3
AHLT 5840	Comparative Health Systems	3
Total Degree Hours 30 sh		

## Learning Outcomes

- Upon completion of the program, graduates will demonstrate the ability to comprehend, prepare, apply, and evaluate evidence based research related to respiratory care.
- Upon completion of the program, graduates will demonstrate proficiency in the skills necessary to utilize current technologies such as, EMR/ EHR computer and online charting and data collection systems/services and applications appropriate for respiratory management, respiratory education and research.
- Upon completion of the program, graduates will demonstrate leadership skills with applications within the healthcare delivery, education, management and research settings.
- Upon completion of the program, graduates will demonstrate the ability to comprehend, prepare, apply, and evaluate advanced clinical applications.

- Upon completion of the program graduates will be cognizant of cultural differences within diverse patient populations and have an awareness of how those differences may affect the delivery of healthcare and outcomes.

## Graduate Courses

### RESC 6900 The Respiratory Care Profession 3 s.h.

Study of origins, current role, and future directions of respiratory care profession within the framework of the current health care environment. Examination of professional resources is also included.

**Prereq.:** Active membership in American Association for Respiratory Care and acceptance in MRC program.

### RESC 6906 Respiratory Care Seminar 3 s.h.

Development of a literature review on select current topics culminating in preparation of a scholarly paper consistent with Respiratory Care Journal Conference format and an accompanying PowerPoint presentation.

**Prereq.:** Acceptance in MRC program.

### RESC 6908 Leadership Development in Respiratory Care 3 s.h.

Using an evidenced-based perspective, the course will examine nature of leadership in health care organizations with an emphasis on self-understanding and learning to achieve both a theoretical and practical understanding of leadership. Health care managers need to be able to create, foster and manage organizations in which people thrive and perform at their best to achieve organizational excellence.

**Prereq.:** Acceptance in MRC program.

### RESC 6910 Competency Assessment in Respiratory Care 3 s.h.

Reviews how clinically-related competencies in respiratory care are measured including available tools. Evaluation of procedures performed by multiple health care practitioners including issues at state/national levels. Importance of assessing cultural competence also included.

**Prereq.:** Acceptance in MRC program.

### RESC 6915 Education and Accreditation in Respiratory Care 3 s.h.

Comparison of institutional as well as programmatic accreditation requirements. Prepare students with up-to-date tools/approaches to address major educational accreditation concerns in hospital as well as in post-secondary settings. Students will also compare and contrast the role of accreditation in today's health care environment.

**Prereq.:** Acceptance in MRC program.

### RESC 6920 Technology Applications for Health and Human Services 3 s.h.

Exploration of technology applications for education, presentations, communications and management in Health and Human Service disciplines. Creation of digital media such as audio and/or video files, spreadsheet macros, e-portfolios and Web-based applications of various technologies will be required. Application of technology to education, supervision or management will be evaluated through completion of a technology-enhanced project.

**Prereq.:** Acceptance in MRC program.

### RESC 6922 Special Topics in Respiratory Care 1-3 s.h.

Special topics for a focused study on problems, issues, or concerns that relate to respiratory care leadership.

**Prereq.:** Acceptance in MRC program.

### RESC 6926 Advanced Mechanical Ventilation 3 s.h.

Develops the practitioner's knowledge of advanced ventilatory theory. The technological aspects and clinical application of dual control modes of ventilation, closed loop and ventilator feedback technology will be discussed. The clinical application of unconventional methods of ventilatory support such as ECMO and carbon dioxide removal, transtracheal gas insufflation and HFV will also be presented.

**Prereq.:** Acceptance in MRC program.

**RESC 6930 Managing Respiratory Services 3 s.h.**

Presents a comprehensive approach to the delivery of respiratory services across the continuum of care. Management practices in traditional or acute care settings and nontraditional home care, outpatient rehabilitation facilities, sleep laboratories and long-term care institutions will be compared and contrasted. Compliance with national/state accreditation standards will also be presented.

**Prereq.:** Acceptance in MRC program.

**RESC 6943 Advanced Monitoring and Therapeutics 3 s.h.**

The course is designed to analyze technical features and clinical application of 'state of the art' invasive and noninvasive monitoring devices. Specialty therapeutic procedures such as the administration of specialized medical gases and medications will also be explored. The essential elements key to successful integration of new and/or complicated therapeutic modalities and equipment into clinical practice will be highlighted.

**Prereq.:** Acceptance in MRC program.

**RESC 6950 Respiratory Care Research 3 s.h.**

Provides rationale behind evidence-based medicine and presents key elements of scientific research for one study, lab investigation or clinical trial. Course will culminate in creation of abstract to be submitted for publication in Respiratory Care journal.

**Prereq.:** Acceptance in MRC program.

# Master of Science in Biological Sciences

## Program Director

Dr. Mark D. Womble  
4063 Ward Beecher Science Hall  
(330) 941-4727  
mdwomble@ysu.edu

## Program Description

The Department of Biological Sciences offers a graduate program leading to the M.S. degree. This program provides both a strong foundation in fundamental principles and theories and an understanding of the advanced application of this information within the diverse disciplines of the life sciences. Students prepare, through coursework and faculty-guided original research, to pursue career paths in the professions, academia, research, business, and industry.

The Department of Biological Sciences includes faculty in:

1. molecular biology, microbiology, and genetics;
2. physiology and anatomy; and
3. environmental biology.

Students may pursue specific areas of specialization within and among these areas, including:

- ecology,
- microbiology,
- molecular biology,
- genetics,
- immunology,
- entomology,
- vertebrate physiology,
- neuroendocrinology,
- neurobiology,
- cell biology, or
- human anatomy.

The department is housed in Ward Beecher Hall. Specialized facilities include an analytical research laboratory housing modern analytical instruments, tissue culture laboratories, an animal facility, laboratories equipped for molecular and cellular research, and an extensive greenhouse facility. The department has exclusive use of two unique outdoor laboratories for field studies: the Youngstown State University Arboretum (a 115-acre reserve) and the Meander Reservoir (a 6,000-acre wildlife refuge and water impoundment), which collectively provide a valuable resource for environmental biology.

## Advisement

Each student's course of study will be devised in consultation with the student's major advisor and will be approved by the student's graduate committee. The course of study will be based on the student's area of specialization, background, and career interests. Students must have their course schedules approved by their major advisor or the graduate director every semester.

## Admission Requirements

In addition to the minimum College of Graduate Studies admission requirements applicants must have completed:

- at least 20 semester hours of undergraduate biology courses (or equivalents which could include biochemistry) with at least a 3.0 grade point average,
- plus one year of organic chemistry,
- one year of introductory physics, and
- one semester of statistics.

Students with deficiencies in these areas should contact the Biology graduate director prior to applying for admission. The Graduate Record Examination (general test) is also required and students must obtain an acceptable score.

## Graduate Faculty

**David K. Asch**, Ph.D., Associate Professor

Gene regulation in eukaryotic organisms; carbon catabolite repression in *Neurospora crassa*

**Michael Butcher**, Ph.D., Associate Professor

Comparative biomechanics: muscle structure and function with regard to locomotion and adaptive behaviors

**Jonathan J. Caguiat**, Ph.D., Associate Professor

Industrial microbiology and genetic and molecular biology techniques to characterize selenite and heavy metal resistant bacteria

**Chester R. Cooper**, Ph.D., Professor

Molecular biology and microbiology; morphogenesis and virulence of pathogenic fungi; identification of anti-fungal targets

**Thomas P. Diggins**, Ph.D., Professor

Field-based community and ecosystem ecology of streams and riparian zones

**Diana L. Fagan**, Ph.D., Professor

Microbiology and immunology; inflammation and regulation of immune responses; stem cell in wound healing

**Jill M. Gifford**, Ph.D., Associate Professor

Effects of environmental influences on acute inflammatory and chronic neuropathic pain

**Carl G. Johnston**, Ph.D., Professor

Microbiology; microbial and fungal ecology; interactions within microbial communities

**Johanna Krontiris-Litowitz**, Ph.D., Professor

Neurobiology and physiology; regulation and phenotypic expression of collagen in ventricular hypertrophy and fibrotic diseases

**Xiangjia Min**, Ph.D., Associate Professor  
Bioinformatics; gene and genome annotation and evolutionary analysis; knowledge database development for secretomes and alternatively spliced genes

**Ian J. Renne**, Ph.D., Associate Professor  
Plant community ecology; invasive species; community structure; allelopathic systems; avian ecology

**Gary R. Walker**, Ph.D., Professor, Chair  
Cellular growth and movement in embryonic tissue; molecular processes underlying cell division; biofuel production

**Mark D. Womble**, Ph.D., Professor  
Human anatomy; neurophysiology; histological analysis of tissues and wound healing

## Degree Requirements

Students may pursue the M.S. degree in biological sciences in one of two options.

- The thesis option is a research-intensive program designed to provide students a strong foundation in fundamental biological principles and theories through coursework and the completion of a faculty-guided research project (thesis).
- The nonthesis option allows students to gain an in-depth understanding of biology through coursework and the writing of a graduate research paper.

## Thesis Option

Under this option, students work on a faculty-guided, original research project and gain practical experience in research techniques and data collection. It is designed for students who wish to pursue careers in academic or industrial laboratories or continue toward the Ph.D. degree.

A minimum of 36 semester hours of credit is required for the M.S. degree with thesis option.

COURSE	TITLE	S.H.
Students must submit an acceptable thesis proposal, pass an oral review of the proposal, submit an acceptable thesis reporting the results of a faculty-supervised research project, and pass an oral defense of the thesis.		
BIOL 6990	Master's Thesis Research (may repeat up to a maximum of six semester hours)	1-6
BIOL 6991	Research Methods for Thesis	6
BIOL 6988	Seminar in Biological Sciences (must take two semester hours)	2
One semester hour of Topics (BIOL 6996-BIOL 7000)		
An additional 21 semester hours of course work with no more than eight semester hours at the 5000 level		
A minimum grade point average of 3.0 is required for graduation.		
<b>Total Semester Hours</b>		<b>36</b>

## Nonthesis Option

This option provides students with a strong understanding of biological theories and principles but does not require an original research project. It is designed for students whose future goal is a nonresearch-oriented career, such as professional school or pharmaceutical sales.

A minimum of 38 semester hours of credit is required for the M.S. degree with a nonthesis option.

COURSE	TITLE	S.H.
BIOL 6994	Research Methods for Nonthesis <sup>1</sup>	2
BIOL 6998	Topics in Physiology (must take two semester hours)	2
One semester hour of Topics (BIOL 6996-BIOL 7000)		1
An additional 33 semester hours of coursework must be completed with no more than 12 semester hours at the 5000 level		33
Students must also pass a final examination administered by their graduate committee and achieve a minimum grade point average of 3.0 for graduation.		
<b>Total Semester Hours</b>		<b>38</b>

- <sup>1</sup> Requires the submission of an acceptable graduate research paper and the oral review of this paper before their graduate committee.

## Learning Outcomes

1. Students will be able to integrate and critique information in a specified sub-discipline of biology.
2. Students will be able to evaluate the scientific literature in the biological sciences.
3. Thesis students will conduct independent research in the biological sciences.
4. Students will create a thesis or position paper that critiques current literature, evaluates scientific data and presents a conclusion.

## Graduate Courses

### BIOL 5806 Field Ecology 4 s.h.

Field study involving quantitative methods for the collection, analysis, and interpretation of ecological data in populations and communities. Pre-field trip lectures, specified experiments, independent study, a written report, and an oral presentation of the independent study project. Required off-campus travel. Field conditions may be rigorous and/or primitive.

**Prereq.:** BIOL 3780.

### BIOL 5811 Ornithology 4 s.h.

Structure, physiology, behavior, ecology, and evolution of birds. Natural history of common bird species and important bird groups, especially those in Ohio. Basic methods and skills for field study of birds. Three hours lecture, three hours lab.

**Prereq.:** BIOL 3741.

### BIOL 5811L Ornithology Laboratory 0 s.h.

Ornithology Laboratory.

### BIOL 5813 Vertebrate Histology 4 s.h.

The microscopic study of mammalian tissues and organs. Three hours lecture, two hours lab.

**Prereq.:** BIOL 3711 or BIOL 3730.

### BIOL 5813L Vertebrate Histology Laboratory 0 s.h.

Vertebrate Histology Laboratory.

### BIOL 5823 Advanced Eukaryotic Genetics 3 s.h.

Mechanisms and control of eukaryotic DNA replication, current advances in understanding the genetics basis of cancer and other genetic diseases, problems and benefits of the various eukaryotic genome projects (human and others), gene therapy and genetic engineering in animals and plants.

**Prereq.:** BIOL 3721 and BIOL 4890.

### BIOL 5824 Behavioral Neuroscience 4 s.h.

Explores the biological basis of human experience and behavior. Topics include basic neuroanatomy and neuropharmacology, emotions, learning and memory, sleep and biological rhythms, reproductive behavior, and communication. Three hours lecture, three hours lab.

**Prereq.:** BIOL 3730.

### BIOL 5824L Behavioral Neuroscience Laboratory 0 s.h.

Behavioral Neuroscience Laboratory.

**BIOL 5827 Gene Manipulation 2 s.h.**

Techniques of modern molecular biology including the use of restriction enzymes, plasmid and phage vectors, Southern blots and the polymerase chain reaction (PCR). Introduction and manipulation of foreign DNA in bacterial and eukaryotic systems. Six hours lab.

**Prereq.:** BIOL 4890.

**BIOL 5832 Principles of Neurobiology 4 s.h.**

Topics include cell and molecular biology of the neuron, properties of excitable membranes, functional neuroanatomy, integrated motor control, sensory signal transduction, developmental neurobiology, mechanisms of disease processes, and higher cortical function.

**Prereq.:** BIOL 3730.

**BIOL 5833 Mammalian Endocrinology 3 s.h.**

Detailed examination of the hormones of the hypothalamus, pituitary, thyroid, adrenal pancreas, gonads, and other organs with putative endocrine function. Focus on the physiological functions of hormones and their mechanisms of action with emphasis on the human.

**Prereq.:** BIOL 3730.

**BIOL 5840 Advanced Microbiology 3 s.h.**

Molecular mechanisms for virulence of pathogenic organisms.

**Prereq.:** BIOL 3702 or equivalent.

**BIOL 5844 Physiology of Reproduction 3 s.h.**

Current concepts of reproductive processes and their physiological control in mammalian systems.

**Prereq.:** BIOL 3730.

**BIOL 5853 Biometry 3 s.h.**

Application of fundamental theory and procedures to the statistical analysis of biological data.

**Prereq.:** 20 s.h. of Biological Sciences.

**BIOL 5861 Animal Behavior 3 s.h.**

Detailed examination of a variety of topics necessary for understanding animal behavior. Historical approaches to animal behavior, evolution and behavior genetics, physiology of behavior, behavioral ecology, and social organization and mating systems.

**Prereq.:** BIOL 3741 or permission of instructor.

**BIOL 5865L Functional Human Gross Anatomy Lab 0 s.h.**

Functional Human Gross Anatomy Lab.

**BIOL 5868 Gross Anatomy 1 4 s.h.**

Regional study of the human body with emphasis on functional and topographic anatomy and clinical correlations. Two hours lecture-demonstration, four hours lab.

**Prereq.:** Admission to the YSU Physical Therapy program or permission of instructor.

**BIOL 5868L Gross Anatomy 1 Laboratory 0 s.h.**

Gross Anatomy 1 Laboratory.

**BIOL 5869 Gross Anatomy 2 4 s.h.**

Regional study of the human body with emphasis on functional and topographic anatomy and clinical correlations. Two hours lecture-demonstration, four hours lab.

**Prereq.:** BIOL 5868.

**BIOL 5869L Gross Anatomy 2 Laboratory 0 s.h.**

Gross Anatomy 2 Laboratory.

**BIOL 5888 Environmental Biotechnology 4 s.h.**

Lectures will cover the use of microbes for solving environmental problems. In the laboratory, teams of students will design and implement experiments in bioremediation. This course is intended for students in biology, environmental studies, chemistry, and engineering. Two hours lecture and four hours lab.

**Prereq.:** CHEM 3719 or CEEN 3736.

**BIOL 5888L Environmental Biotechnology Laboratory 0 s.h.**

Environmental Biotechnology Laboratory.

**BIOL 6900 Advanced Bioinformatics 3 s.h.**

An examination of how computer and informatics technology is applied to biological data analysis, particularly in the area of genomics data mining, and its use in genomics, molecular, and systems biology research. Three hours of lecture per week.

**Prereq.:** BIOL 4890 or permission of instructor.

**BIOL 6901 Computational Bioinformatics 2 s.h.**

Project-based learning course with a focus on using a Linux environment and a script language such as PERL for processing large genomic datasets. Relational databases such as MySQL and BioPERL will also be covered for genomic data analysis and display. Two hours of combined lecture and lab per week.

**Prereq.:** BIOL 6900 or permission of instructor.

**BIOL 6902 Ecology of Lakes 3 s.h.**

A study of the physical, chemical, biological, and ecological structure and function of lake ecosystems.

**Prereq.:** permission of instructor.

**BIOL 6903 Stream Ecology 3 s.h.**

A study of the physical, chemical, biological, and ecological structure and function of stream ecosystems, and of their associated riparian zones.

**Prereq.:** permission of instructor.

**BIOL 6906 Ecosystems Field Ecology 4 s.h.**

Students will learn about destination ecosystems, including associated organisms, interactions, physical, chemical, climatic conditions, culture, and human impacts. Students must be in good health, hike, swim, and handle primitive conditions. Course may be taken more than once with different destination ecosystems. This course involves travel expenses in addition to lab fees.

**Prereq.:** permission of instructor.

**BIOL 6909 The Human Microbiome 3 s.h.**

This course covers microbial communities and their interactions associated with the human host. Scientific literature on the identity and roles of microbes associated with the human gut, oral cavity, skin, genital-urinary tract and respiratory system will be reviewed, presented, and discussed.

**Prereq.:** One of the following courses: undergraduate microbiology, physiology, biochemistry, immunology, or molecular biology.

**BIOL 6911 Comparative Biomechanics 4 s.h.**

Overview of biomechanical principles involved with the structure and function of animals. Topics include mechanical properties of biomaterials, comparative muscle architecture and physiology, and locomotor mechanisms of human walking and running. Three hours lecture and two hours lab.

**Prereq.:** BIOL 2602 or BIOL 3705, and PHYS 1501 or PHYS 2610.

**BIOL 6911L Comparative Biomechanics Lab 0 s.h.**

Comparative Biomechanics Lab.

**BIOL 6929 Functional Neuroanatomy 4 s.h.**

An examination of the structure, function, integration, and cellular control of the brain and spinal cord. Three hours lecture, two hours lab. Students who have enrolled in BIOL 4929 will not receive credit for this course.

**Prereq.:** BIOL 3730 or equivalent.

**BIOL 6929L Functional Neuroanatomy Lab 0 s.h.**

Functional Neuroanatomy Lab.

**BIOL 6934 Advanced Physiology: Integrative Mechanisms 3 s.h.**

Examination of advanced human physiology through a detailed study of selected body systems. Systems examined may include the cardiovascular, respiratory, and renal systems, exchange dynamics among body fluid compartments, and acid-base balance. Three hours lecture.

**Prereq.:** BIOL 3730 or equivalent.

**BIOL 6934L Advanced Physiology: Integrative Mechanisms Laboratory 1 s.h.**

An experimental approach to the examination of advanced human physiology through a detailed study of selected body systems. Systems examined may include the cardiovascular, respiratory, and renal system, exchange dynamics among body fluid compartments, and acid-base balance. Three hours lab.

**Prereq.:** BIOL 3730 or equivalent.



**BIOL 6935 Advanced Physiology: Regulatory Mechanisms 3 s.h.**

Examination of advanced human physiology through a detailed study of selected body systems. Systems examined may include the musculoskeletal, gastrointestinal, metabolic and thermoregulatory. Three hours lecture.

**Prereq.:** BIOL 3730 or equivalent.

**BIOL 6935L Advanced Physiology: Regulatory Mechanisms Laboratory 1 s.h.**

The experimental approach to the examination of advanced human physiology through a detailed study of selected body systems. Systems examined may include the musculoskeletal, gastrointestinal, metabolic and thermoregulatory. Three hours lab.

**Prereq.:** BIOL 6935 or concurrent enrollment in BIOL 6935.

**BIOL 6937 Conservation Biology 3 s.h.**

A socioeconomic, political and ecological approach to issues associated with the maintenance and value of biodiversity and ecosystem services; consequences of anthropogenic climate change, fragmentation, overharvesting, extinction, and invasion of non-native species; biofuels; ecological restoration, nature reserve design and sustainability.

**Prereq.:** BIOL 3759 or BIOL 3750 or permission from instructor.

**BIOL 6940 Microbial Physiology 4 s.h.**

This course will present advanced topics in biomolecule synthesis, molecular biology, bacterial genetics, gene expression, energy production photosynthesis, bacteriophages, and microbial stress response. An integrative laboratory project emphasizing some of these topics will be included. Three hours lecture and three hours laboratory.

**Prereq.:** Graduate standing.

**BIOL 6948 Biology of Fungi 4 s.h.**

Examination of fungal and fungal-like organisms with emphasis placed upon their taxonomy, phylogenetic relationships, structure, function, physiology, genetics, and ecology. Their role in agriculture, medicine, and scientific research is explored as well. Three hours lecture and three hours laboratory.

**Prereq.:** BIOL 3702 Microbiology and graduate standing.

**BIOL 6949 Cellular and Molecular Mycology 3 s.h.**

Specific cellular and molecular processes in fungal organisms will be examined in great detail. Topic areas include morphogenesis, dimorphism, signal transduction, gene expression and regulation, cellular differentiation, nutritional physiology, primary and secondary metabolism, and host/parasite interactions.

**Prereq.:** BIOL 3702 or equivalent, and graduate standing.

**BIOL 6950 Comparative Animal Physiology 4 s.h.**

The study of physiological mechanisms and adaptations of animals to environmental stresses of their habitats. Three hours lecture and three hours laboratory per week.

**Prereq.:** BIOL 3730 Human Physiology or equivalent.

**BIOL 6950L Animal Physiology Lab 0 s.h.**

Animal Physiology Laboratory.

**BIOL 6951 Developmental and Comparative Neurobiology 3 s.h.**

The study of processes critical to the development, maintenance, and function of the nervous system. Topics will be presented from an experimental perspective using the scientific literature as a resource.

**Prereq.:** BIOL 3730 Human Physiology or equivalent.

**BIOL 6952 Experimental Design 3 s.h.**

Controlling variables, experimental design, and treatment of data from biological experiments.

**Prereq.:** BIOL 5853 or permission of instructor.

**BIOL 6954 Advanced Ecology 3 s.h.**

Interrelationships of species within the community and their influence upon the ecosystem.

**Prereq.:** Permission of instructor.

**BIOL 6957 Advanced Immunology 3 s.h.**

Fundamentals of immunological systems, including both humoral and cellular immunological responses. Immune response to infections, transplantation rejection, autoimmune diseases, allergy, and autoimmunity. Three hours of lecture a week.

**Prereq.:** BIOL 3702 Microbiology or equivalent.

**BIOL 6957L Advanced Immunology Laboratory 2 s.h.**

Immunologic laboratory techniques. Four hours of laboratory a week. Should be taken concurrently with BIOL 6957.

**BIOL 6959 Analytical Cell Biology 4 s.h.**

Analytical concepts are applied to the study of cells and cellular processes. The use of microscopic techniques, including microtechniques, fluorescent microscopic analysis, and immunocytochemistry, are presented. Qualitative and quantitative analysis of macromolecular composition is used in answering contemporary questions in cell biology.

**Prereq.:** Graduate standing.

**BIOL 6962 Systematic Zoology 2 s.h.**

Principles, significance, and procedure of zoological taxonomy.

**Prereq.:** BIOL 3741 Animal Diversity.

**BIOL 6963 Virology 3 s.h.**

Viral structure, replication, infection, and pathogenesis. The molecular biology of viruses and their interactions with host cells, and the use of viruses as tools for gene therapy and genetic engineering. Current research and viruses important in world health, such as HIV, will be emphasized.

**Prereq.:** Graduate standing or permission of instructor.

**BIOL 6963L Virology Lab 0 s.h.**

Virology Laboratory.

**BIOL 6964 Advanced Molecular Genetics 3 s.h.**

An examination of the mechanisms of transcription, translation, DNA replication, and RNA processing and transposition in both prokaryotes and eukaryotes.

**Prereq.:** BIOL 4890 Molecular Genetics or permission of instructor.

**BIOL 6966 Protein Analysis 4 s.h.**

Students will gain experience in the analysis of proteins. Protein structure and function relationships are discussed in the context of their relevance in analytical techniques. Methods presented and used in class include protein quantification, two-dimensional gel electrophoresis, liquid chromatography, gel image analysis, and amino acid analysis. Two hours lecture and four hours laboratory.

**Prereq.:** BIOL 4836 or equivalent, and graduate standing.

**BIOL 6967 Stem Cell Biology 3 s.h.**

This course deals with the study of stem cells and their role in biology. Developmental aspects of stem cells and the relevance of stem cells to medicine and applied biology will be discussed.

**Prereq.:** BIOL 5827 or equivalent.

**BIOL 6968 Cell Culture Methods Laboratory 2 s.h.**

This course provides instruction and training in standard animal cell culture techniques. Theory and practice using established cell lines. In addition, more advanced cell cultivation will be explored, bio-reactors and 3D bio-printing.

**Prereq.:** permission of instructor.

**BIOL 6974 Neuroendocrinology 3 s.h.**

Current concepts of neuroendocrine processes will be discussed.

**Prereq.:** BIOL 5833 or equivalent, or permission of instructor.

**BIOL 6975 Neuropharmacology 3 s.h.**

An examination of how drugs interact with the nervous system, including the locus of action for neuroactive substances and the mechanisms by which these substances cause change in physiology and behavior.

**Prereq.:** Graduate standing or permission of instructor.

**BIOL 6976 Cellular Neurophysiology 3 s.h.**

Detailed study of ionic currents, regulation of neuronal firing patterns, synaptic transmission, and synaptic plasticity.

**Prereq.:** BIOL 5832 or permission of instructor.

**BIOL 6978 Teaching Practicum 1: Principles of Biology 1 s.h.**

A course dealing with principles of pedagogy for both classroom and laboratory settings. This is a broad-based course, which will address basic principles and concepts of modern biology. Emphasis is on relationships between instruction and learning outcomes. Required of all graduate teaching assistants in the Biological Sciences. Students will be assigned a grade of S/U. May be repeated.

**BIOL 6979 Teaching Practicum: 1545 Anatomy and Physiology 1 s.h.**

A course dealing with the principles of pedagogy for BIOL 1545 Allied Health Anatomy and Physiology. This course addresses classroom and laboratory topics in human anatomy and physiology, with an emphasis on the relationships between instruction and learning outcomes. Required of graduate teaching assistants providing instructional support for BIOL 1545. Students will be assigned a grade of S/U. May be repeated.

**BIOL 6981 Teaching Practicum: 1551 Anatomy and Physiology 1 s.h.**

A course dealing with the principles of pedagogy for BIOL 1551 Anatomy and Physiology I. This course addresses classroom and laboratory topics in human anatomy and physiology with an emphasis on the relationships between instruction and learning outcomes. Required of graduate teaching assistants providing instructional support for BIOL 1551. Students will be assigned a grade of S/U. May be repeated.

**BIOL 6982 Teaching Practicum: 1552 Anatomy and Physiology 2 1 s.h.**

A course dealing with the principles of pedagogy for BIOL 1552 Anatomy and Physiology II. This course addresses classroom and laboratory topics in human anatomy and physiology with an emphasis on the relationships between instruction and learning outcomes. Required of graduate teaching assistants providing instructional support for BIOL 1552. Students will be assigned a grade of S/U. May be repeated.

**BIOL 6988 Seminar in Biological Sciences 1 s.h.**

May be repeated up to two semester hours.

**BIOL 6989 Graduate Research Experience 1-3 s.h.**

Independent study for graduate students wishing to learn specific biological research techniques. Applicable only to biology graduate students following the nonthesis or biology education options. May be repeated for up to a total of three semester hours.

**Prereq.:** Permission of instructor or department chair.

**BIOL 6990 Master's Thesis Research 1-6 s.h.**

Research selected and supervised by departmental advisor and approved by graduate faculty of Biology Department and graduate dean. May be repeated for a maximum of six semester hours.

**Prereq.:** Acceptance by departmental committee.

**BIOL 6991 Research Methods for Thesis 3 s.h.**

Discussion and demonstration of current methods and concepts related to research in biological sciences and writing of a graduate thesis proposal. Not applicable for students enrolled in the nonthesis or biology education options. May be repeated once.

**Prereq.:** Permission of instructor.

**BIOL 6993 Biology of Proteins 2 s.h.**

This course engages the student in the world of proteins, from the basic structure and function of proteins in biological systems, to the applied sciences involved in the development of commercially valuable proteins. This course extends the students previous understanding and expertise in molecular biology to emphasize proteins.

**Prereq.:** BIOL 5827 or equivalent.

**BIOL 6994 Research Methods for Nonthesis 2 s.h.**

A course focused on reviewing current biological concepts as reported in the scientific literature. Not applicable for students enrolled in the thesis or biology education options.

**Prereq.:** Permission of instructor.

**BIOL 6996 Topics in Ecology 1 s.h.**

An arranged course in terrestrial and aquatic ecology. May be repeated with a different subject up to 2 s.h.

**Prereq.:** Permission of instructor.

**BIOL 6997 Topics in Molecular and Cellular Biology 1 s.h.**

An arranged course in subjects at the molecular level of life. May be repeated with different subject up to 2 s.h.

**Prereq.:** Permission of instructor.

**BIOL 6998 Topics in Physiology 1 s.h.**

An arranged course for advanced subjects in vertebrate physiology. May be repeated with a different subject up to 2 s.h.

**Prereq.:** Permission of instructor.

**BIOL 7000 Topics in Microbiology 1 s.h.**

An arranged course on subjects of microbiology. May be repeated with a different subject up to 2 s.h.

**Prereq.:** Permission of instructor.

**BIOL 8868 Human Gross Anatomy 1 4 s.h.**

Regional study of the human body with emphasis on functional and topographic anatomy and clinical correlations. Two hours of lecture-demonstration four hours of lab. h.

**Prereq.:** Admission to the YSU Physical Therapy Program 4 s.

**BIOL 8868L Human Gross Anatomy 1 Lab 0 s.h.**

Human Gross Anatomy I Lab.

**BIOL 8869 Human Gross Anatomy 2 4 s.h.**

Regional study of the human body with emphasis on functional and topographic anatomy and clinical correlations. Two hours lecture. Four hours lab.

**Prereq.:** BIOL 8868.

**BIOL 8869L Human Gross Anatomy 2 Lab 0 s.h.**

Human Gross Anatomy Laboratory.

## Master of Science in Chemistry

### Program Director

Dr. Sherri R. Lovelace-Cameron  
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(330) 941-1997  
srlovelacecameron@ysu.edu

### Program Description

The Department of Chemistry offers a program of study leading to the M.S. degree with concentrations available in:

- analytical,
- biochemistry,
- inorganic,
- materials,
- organic, and
- physical chemistry.

The program prepares the student for practice as a professional chemist by teaching academic fundamentals, creative and independent thinking through independent study and research, and leadership skills through interaction with undergraduate students as graduate teaching assistants. The program is also excellent preparation for further advanced study at other institutions, leading to the Ph.D. degree in chemistry or professional degrees in chemistry-related fields. The department has state-of-the-art instrumentation facilities and a wide assortment of instruments readily available for student and faculty research including: two powder- and three single-crystal X-ray diffractometers, a transmission electron microscope, a Focused Ion Beam/Scanning Electron Microscopy system, two 400 MHz NMRs, FTIR, ICP-AES, AA, GC-MS, LC-MS, high resolution MS, several HPLCs, X-ray fluorescence, thermogravimetric analyzers, differential scanning calorimeter, gel permeation chromatograph, diode array spectrophotometers, and electrochemical systems.

## Advisement

Entering students are advised by the program director. Within the first semester of full-time graduate studies, the student should select a thesis advisor, who will assist the student in planning the remainder of the program. Within the first year of full-time graduate studies, the student should select a thesis advisory committee in consultation with the thesis advisor. The committee, including the advisor, will meet periodically with the student to evaluate the progress of the research and to provide guidance.

## Admission Requirements

In addition to the minimum admission requirements of the College of Graduate Studies, an applicant for admission to the M.S. degree program in the Department of Chemistry must present an undergraduate major in chemistry or the equivalent. Ordinarily, this entails the completion of at least a year's study in both organic and physical chemistry. In those cases where the undergraduate preparation is slightly deficient, the applicant may be admitted with provisional status with the approval of the chair of the Chemistry Department and the Graduate Dean. Students must achieve an acceptable score on the Graduate Record Examination general test (GRE) for admission to the program. The Chemistry or Biochemistry subject GRE test is also required of all students who do not have a B.S. or B.A. in chemistry or biochemistry.

Students must submit three recommendation letters and responses, of less than one page, to the following four statements;

1. Describe your academic background. Indicate major and minor(s) in college study, any honors attained or special activities engaged in, and degrees, titles or certificates earned.
2. Describe your employment experience in chronological order, including name and location of employer, kinds of positions held, and responsibilities involved.
3. Describe any research experience or if you have an interest in a specialized field within chemistry.
4. Describe your purpose in working for a master's degree, including your occupational plans and goals.

## Graduate Faculty

**Ganesaratnam K. Balendiran**, Ph.D., Professor

Biomolecular structural biochemistry; structure and function of biological molecules and manipulation of their physiological properties with novel chemicals for health benefits

**Larry S. Curtin**, Ph.D., Associate Professor

Electroanalytical chemistry; synthetic inorganic chemistry; self-assembled monolayers; buckminsterfullerene; conducting polymers and charge transfer salts

**Douglas T. Genna**, Ph.D., Assistant Professor

Merging organic chemistry with metal organic frameworks; stabilization of reactive intermediates

**Allen D. Hunter**, Ph.D., Professor

Materials chemistry; crystallography; instrumental Methods; chemistry education

**John A. Jackson**, Ph.D., Associate Professor

Synthetic organic chemistry; organophosphorus chemistry; synthetic methodology; biologically active compounds; asymmetric synthesis

**Brian D. Leskiw**, Ph.D., Professor

Mass spectrometric investigation of various compounds, including chemical vapor deposition precursors, substituted phenols, and trace analysis of pyrazines/haloanisoles

**Clovis Linkous**, Ph.D., Professor

Ceramic electrolytes, polymer membrane electrolytes, solid state hydrogen storage, photovoltaic materials, photocatalytic decomposition of hydrogen sulfide; algae inhibition

**Sherri R. Lovelace-Cameron**, Ph.D., Professor

Synthesis and electrochemistry of novel organometallic polymers; synthesis of metal organic frameworks

**Peter Norris**, Ph.D., Professor

Synthesis of novel monomers, oligomers, and polymers derived from carbohydrates; environmentally friendly methods to organic synthesis; catalytic decomposition of natural azide nad diazo

**Michael A. Serra**, Ph.D., Associate Professor

Effects of free radicals on proteins

**Josef B. Simeonsson**, Ph.D., Professor

Analytical atomic and molecular spectroscopy; trace and ultratrace analysis; laser induced fluorescence spectroscopy; laser ionization spectroscopy; Raman spectroscopy; environmental analysis

**Nina V. Stourman**, Ph.D., Associate Professor

Studies of bacterial functional genomics during response to stress; bacterial glutathione metabolism and the mechanism and biological role of bifunctional enzyme glutathionyl spermidine synthetase/amidase (GSS) and its products in *E. coli*

**Timothy R. Wagner**, Ph.D., Professor, Chair

Synthesis of inorganic oxide and mixed-anion materials; structure characterizations using single crystal and powder X-ray diffraction; electron microscopy techniques

A minimum of 35 semester hours of credit is required for the M.S. degree.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
CHEM 6980	Introduction to Chemical Research (taken the first year)	3
CHEM 6981	Seminar 1	1
CHEM 6982	Seminar 2	1
<b>Content Chemistry Courses</b>		
Select 15 semester hours		15
<b>Electives</b>		
Select 6 semester hours in consultation with advisor		6
<b>Thesis</b>		
CHEM 6990	Thesis	9-12
<b>Total Semester Hours</b>		<b>35-38</b>

For graduation, the student must achieve a grade point average of 3.0 or higher in chemistry and must complete an acceptable research proposal, written thesis, and oral defense of the thesis.

## Teaching Assistants

COURSE	TITLE	S.H.
<b>Required Courses</b>		
CHEM 6980	Introduction to Chemical Research (taken the first year)	3
CHEM 6981	Seminar 1	1
CHEM 6982	Seminar 2	1
CHEM 6975	An Introduction to Teaching Chemistry (taken the first year)	1
Register for one of the following each semester (does not count towards the degree):		
CHEM 6976	Teaching Practicum in General Chemistry	
CHEM 6977	Teaching Practicum in Allied Health Chemistry	

CHEM 6978	Teaching Practicum in Organic Chemistry	
CHEM 6979	Teaching Practicum for Chemistry in Modern Living Lab	
<b>Content Chemistry Courses</b>		
Select 15 semester hours		15
<b>Electives</b>		
Select 6 semester hours in consultation with advisor		6
<b>Thesis</b>		
CHEM 6990	Thesis	9-12
<b>Total Semester Hours</b>		<b>36-39</b>

For graduation, the student must achieve a grade point average of 3.0 or higher in chemistry and must complete an acceptable research proposal, written thesis, and oral defense of the thesis.

## Learning Outcomes

1. Graduate students will demonstrate a thorough understanding of the chemical principles related to their chosen area of Chemistry or Biochemistry.
2. Graduate students will demonstrate the ability to search and critically assess the scientific literature.
3. Graduate students will demonstrate a thorough understanding of the applications and basic principles of the chemical instrumentation, techniques, and/or software that is commonly used in their sub-discipline.
4. Graduate students will effectively communicate their research ideas and findings both orally and in writing.

## Graduate Courses

### CHEM 5804 Chemical Instrumentation 4 s.h.

The theoretical foundations of instrumental procedures and the use of instruments in analytical work. Two hours lecture, six hours lab.

**Prereq.:** CHEM 3739.

### CHEM 5804L Chemical Instrumentation Laboratory 0 s.h.

Chemical Instrumentation Laboratory.

### CHEM 5821 Intermediate Organic Chemistry 3 s.h.

An intermediate treatment of organic chemistry building on the principles introduced at the sophomore level. Emphasis on curved arrow notation in mechanism and the planning of organic syntheses. Structural analysis of organic compounds using NMR, IR and MS and the application of structural knowledge to questions of mechanism.

**Prereq.:** CHEM 3720.

### CHEM 5822 Advanced Organic Laboratory 4 s.h.

An advanced approach to the applications of organic chemistry in the laboratory. Synthesis and purification of organic molecules using modern techniques, structure elucidation using spectroscopic techniques. Lecture discussion includes use of instrumentation, planning of practical syntheses, use of the primary chemical literature and safety in the laboratory. Two hours lecture, six hours lab.

**Prereq.:** CHEM 3720.

### CHEM 5822L Advanced Organic Laboratory 0 s.h.

Advanced Organic Laboratory.

### CHEM 5830 Intermediate Inorganic Chemistry 2 s.h.

Reactions and descriptive chemistry of transition metal, organometallic, and main-group compounds.

**Prereq.:** CHEM 3729, CHEM 3740 (may be concurrent).

### CHEM 5831 Inorganic Chemistry Laboratory 2 s.h.

Preparation of typical inorganic compounds and their characterization. Six hours lab-discussion.

**Prereq. or concurrent:** CHEM 3729 and CHEM 3739.

### CHEM 5832 Solid State Structural Methods 3 s.h.

The determination of structures of biological, organic, and inorganic materials in the solid state. Introduction to the crystalline state, defects, diffraction of waves, powder and single crystal diffraction methods of neutron and x-ray analysis, electron microscopy, and solid state NMR. Two hours lecture, three hours lab.

**Prereq.:** CHEM 3729.

### CHEM 5832L Solid State Structural Methods Laboratory 0 s.h.

Solid State Structural Methods Laboratory.

### CHEM 5836 Quantum Chemistry 3 s.h.

Basic principles of quantum chemistry, with applications to problems in molecular structure, spectroscopy and thermodynamics.

**Prereq.:** CHEM 3740.

### CHEM 5861 Polymer Science 1: Polymer Chemistry and Plastics 3 s.h.

Preparation, characterization, structure-property relationships, morphology, and uses of the major commercial polymers. Two hours lecture, three hours lab.

**Prereq.:** CHEM 3739.

### CHEM 5861L Polymer Science 1: Polymer Chemistry and Plastics Laboratory 0 s.h.

Polymer Science 1: Polymer Chemistry and Plastics Laboratory.

### CHEM 5862 Polymer Science 2: Polymer Rheology, Processing, and Composites 3 s.h.

Polymer rheology, processing methods, and materials characterization. The effects of additives and the major classes of thermoplastic, thermoset, elastomeric, and composite materials. Two hours lecture, three hours lab.

**Prereq.:** CHEM 5861 or consent of the chairperson.

### CHEM 5862L Polymer Science 2: Polymer Rheology, Processing, and Composites Laboratory 0 s.h.

Polymer Science 2: Polymer Rheology, Processing, and Composites Laboratory.

### CHEM 5876 Enzyme Analysis 2 s.h.

Advanced biochemistry laboratory focusing on the methods of enzyme purification and characterization. One hour lecture, two hours lab.

**Prereq.:** CHEM 3785 or equivalent and CHEM 3785L or equivalent.

### CHEM 6911 Advanced Analytical Chemistry 1 3 s.h.

Theory and applications of spectroscopy and theory of chemical separation methods.

**Prereq.:** CHEM 3739 Physical Chemistry I.

### CHEM 6912 Advanced Analytical Chemistry 2 3 s.h.

Applications of chemical separation methods and theory and applications of electrochemistry and electrochemical techniques.

**Prereq.:** CHEM 3739 Physical Chemistry.

### CHEM 6921 Advanced Biochemistry 1 3 s.h.

Protein structure and intermediary metabolism.

**Prereq.:** CHEM 3720, or concurrently with CHEM 3737 or CHEM 3739.

### CHEM 6922 Advanced Biochemistry 2 3 s.h.

A study of metabolic pathways and other biochemical systems at the molecular level.

**Prereq.:** CHEM 6921.

### CHEM 6931 Advanced Inorganic Chemistry 1 3 s.h.

Current theories and types of bonding. Modern structural principles with applications in main-group molecular compounds, coordination compounds, and inorganic solids.

**Prereq.:** CHEM 3729 Inorganic Chemistry.

### CHEM 6932 Advanced Inorganic Chemistry 2 3 s.h.

Transition metal organometallic chemistry emphasizing molecular structure, bonding methods, characterization, and functional group reactivity. The properties, chemical reactivity, and trends of the elements.

**Prereq.:** CHEM 5830, CHEM 6931, or permission of instructor.

**CHEM 6933 Physical Methods in Structure Determination 3 s.h.**

The determination of molecular-level structures of biological, organic, and inorganic compounds in the gas phase, solution, and solid state by diffraction and spectroscopic methods, especially X-ray crystallography and NMR spectroscopy. Three hours lecture.

**Prereq.:** CHEM 5822, CHEM 5832, or permission of instructor.

**CHEM 6941 Advanced Organic Chemistry 1 3 s.h.**

Principles of chemical bonding and structure in organic molecules, physical organic chemistry, structure of reactive intermediates, stereochemistry, and detailed descriptions of reaction mechanisms.

**Prereq.:** CHEM 3721 Genetics and CHEM 3740 Physical Chemistry 2.

**CHEM 6942 Advanced Organic Chemistry 2 3 s.h.**

Detailed study of functional group transformations in organic synthesis as applied to the preparation of complex molecules. Carbon-carbon bond forming reactions, organometallic reagents in organic synthesis, oxidation-reduction chemistry, and multi-step synthesis.

**Prereq.:** CHEM 6941.

**CHEM 6951 Advanced Physical Chemistry 1 3 s.h.**

Principles of quantum chemistry and spectroscopy with applications.

**CHEM 6952 Advanced Physical Chemistry 2 3 s.h.**

Molecular basis of thermodynamics and kinetics.

**CHEM 6963 Advanced Polymer Science 3 s.h.**

Advanced methods of polymer synthesis and characterization, high performance polymers, polymerization kinetics and mechanisms, polymer processing, materials optimization, and high performance applications. Three hours lecture.

**Prereq.:** CHEM 3740 and CHEM 5861, or permission of the instructor.

**CHEM 6969 Laboratory Problems 2 s.h.**

A laboratory course that stresses individual effort in solving chemical problems. Recommended for high school chemistry teachers. Not applicable to the M.S. degree in chemistry. May be repeated up to six semester hours.

**Prereq.:** An undergraduate minor in chemistry.

**CHEM 6971 The Teaching and Learning of Chemistry 3 s.h.**

An introduction to the current literature and research problems in the teaching and learning of chemistry. Topics include theories of teaching, learning styles, assessment, problem solving, misconceptions, and the role of laboratories, recitations, and demonstrations in learning chemistry. Also includes examination of these issues as related to teaching biology.

**CHEM 6972 Methods of Chemistry Education Research 3 s.h.**

Principles of chemistry education research. Issues of problem design, data collection, and data analysis are considered from both quantitative and qualitative frameworks. Methodologies include surveys and questionnaires, think-along protocols, interviews, observations, and action research. Also includes examination of these issues as related to biology.

**CHEM 6973 Chemistry and National Science Education Standards 3 s.h.**

Implications of national standards for modifying high school chemistry instruction in a variety of classroom situations. Topics include inquiry learning, science and technology literacy, the history and nature of science, preservice science teacher education, assessment, and the impact of standards on advanced placement chemistry.

**CHEM 6975 An Introduction to Teaching Chemistry 1 s.h.**

A course to prepare graduate students to serve as teaching assistants in both chemistry laboratories and recitations. Topics include laboratory safety (governmental regulations, ACS guidelines, hazardous materials, waste disposal) and practical matters of teaching (active learning, leading discussions, grading, cheating, etc.). Required of all graduate students serving as first-year teaching assistants.

**CHEM 6976 Teaching Practicum in General Chemistry 2 s.h.**

Teaching strategies in the General Chemistry laboratory. Students will meet with General Chemistry course instructors and must demonstrate proficiency in the material to be presented in CHEM 1515 General Chemistry 1 and CHEM 1516 General Chemistry 2 laboratories. Grading for CHEM 6976 is S/U. May be repeated for a total of six semester hours for CHEM 6976, CHEM 6977, CHEM 6978, and CHEM 6979.

**Prereq. or concurrent:** CHEM 6975.

**CHEM 6977 Teaching Practicum in Allied Health Chemistry 2 s.h.**

Teaching strategies in the Allied Health Chemistry laboratory. Students will meet with Allied Health Chemistry course instructors and must demonstrate proficiency in the material to be presented in CHEM 1505 Allied Health Chemistry 1 and CHEM 1506 Allied Health Chemistry 2 laboratories. Grading for CHEM 6977 is S/U. CHEM 6977, CHEM 6978, and CHEM 6979. May be repeated for a total of six semester hours for CHEM 6976.

**Prereq. or concurrent:** CHEM 6975.

**CHEM 6978 Teaching Practicum in Organic Chemistry 2 s.h.**

Teaching strategies in the organic chemistry laboratory. Students will meet with organic chemistry course instructors and must demonstrate proficiency in the material to be presented in CHEM 3719 Organic Chemistry 1 and CHEM 3720 Organic Chemistry 2 laboratories. Grading for CHEM 6978 is S/U. May be repeated for a total of six semester hours for CHEM 6976, CHEM 6977, CHEM 6978, and CHEM 6979.

**Prereq. or concurrent:** CHEM 6975.

**CHEM 6979 Teaching Practicum for Chemistry in Modern Living Lab 2 s.h.**

Teaching strategies in the Chemistry in Modern Living Laboratory. Students will meet with course coordinator and must demonstrate proficiency in the material to be presented in CHEM 1500L. Grading for CHEM 6979 is S/U. May be repeated for a total of six semester hours for CHEM 6976, CHEM 6977, CHEM 6978, and CHEM 6979.

**Prereq. or concurrent:** CHEM 6975.

**CHEM 6979B Teaching Practicum for Chemistry in Modern Living Lab 1 2 s.h.**

Teaching strategies in the Chemistry in Modern Living Laboratory. Students will meet with course coordinator and must demonstrate proficiency in the material to be presented in CHEM 1500L. Grading for CHEM 6979 is S/U. May be repeated for a total of six semester hours for CHEM 6976, CHEM 6977, CHEM 6978, and CHEM 6979.

**Prereq. or concurrent:** CHEM 6975.

**CHEM 6980 Introduction to Chemical Research 3 s.h.**

Principles of chemical research planning, design, execution, and reporting. Includes research proposals, record keeping, written reports, oral presentations, the reviewing process, and professional standards. The application of the principles of chemical research to the student's M.S. research project. Required of all first-year students in the M.S. program in chemistry.

**CHEM 6981 Seminar 1 1 s.h.**

Preparation of a formal written research proposal and oral presentation of the proposal. Under the guidance of a research supervisor, the student will investigate the background literature and rationale for a project. Required of all first-year students in the M.S. program in chemistry. Hours arranged.

**Prereq.:** CHEM 6980 and permission of the Chemistry chair.

**CHEM 6982 Seminar 2 1 s.h.**

Oral presentation and defense of thesis. Hours arranged.

**Prereq.:** CHEM 6981 and permission of the thesis advisor, or concurrently with six semester hours of CHEM 6990.

**CHEM 6985 Fundamental Chemistry for Educators 3 s.h.**

Fundamentals of general, organic, and biological chemistry including application to the teaching of science. Two hours lecture, three hours laboratory/discussion. Not applicable to the M.S. degree in chemistry.

**Prereq.:** Admission to the graduate program or permission of instructor.

**CHEM 6989 Special Topics in Chemistry Practicum 1-3 s.h.**

Topics selected by the faculty from fields of current research, pedagogical interest, or special emphasis. S/U grading option. May be repeated with different topics.

**CHEM 6990 Thesis 1-9 s.h.**

Hours arranged. May be repeated.

**CHEM 6991 Special Topics 1-3 s.h.**

Topics selected by the faculty from fields of current research interest or of special emphasis. May be repeated with different topics.

## Master of Science in Criminal Justice

### Program Director

Dr. John M. Hazy  
2090 Cushwa Hall  
(330) 941-1789  
jmhazy@ysu.edu

### Program Description

The Master of Science in criminal justice at YSU provides professional education for criminal justice students. Criminal Justice faculty members are currently involved in research in police management theory, applied police management, correctional organization and treatment, crime statistics, and criminological theory. Students are encouraged to participate in this ongoing research.

Students considering a career in the field of criminal justice should be aware that many employers and agencies may require applicants to meet certain preemployment qualifications. These may include, but are not limited to,

- lack of a criminal record,
- satisfactory background checks,
- physical standards and conditions, and
- emotional stability.

### Regular Admission

To obtain regular admission, students must have a cumulative grade point average in undergraduate work of 3.0 or higher (on a 4.0 scale) or a satisfactory standardized test score (30th percentile or higher on the GRE overall, or MAT group overall score) and undergraduate GPA of 2.7 or higher. If students meet these criteria but have undergraduate coursework deficiencies, they may be granted provisional admission.

### Provisional Admission

A student with a cumulative GPA in undergraduate work below a 3.0 must have either of the following two criteria in order to obtain provisional admission:

1. a satisfactory standardized test score (30th percentile or higher on the MAT, GRE, or GMAT)
2. an undergraduate GPA of 3.0 or higher (on a 4.0 scale) in the last 30-40 hours of coursework.

Upon admission to the criminal justice graduate program and selection of emphasis area, each student is guided by a committee of three faculty members. The student selects a graduate advisor in the area of concentration from the faculty of the Department of Criminal Justice and Forensic Sciences. This advisor serves as the chair of the student's graduate committee. The student and advisor select the other two members of the committee, both of whom must be members of the graduate faculty and one of whom may come from a department other than Criminal Justice. This committee will assist the student as appropriate with the planning of the program, preparation and oral defense of the thesis, or the graduate paper and its defense in the case of the nonthesis option.

### Academy Training and Life Experience

Opportunities are available through the Department of Criminal Justice and Forensic Sciences for students who do not have life experience or police academy training.

### Admission Requirements

While an undergraduate degree in this discipline is not required for admission, a substantial background in the social sciences is preferred. Students lacking such preparation will, at the discretion of the department, be required to make up deficiencies. Each student must have completed:

- the equivalent of CJFS 1500 Introduction to Criminal Justice,
- a course in criminology and/or crime and delinquency,
- an introductory course in statistics, and
- a research methodology course.

Students admitted with deficiencies in any of these requirements must remove them by completion of the second semester of graduate coursework.

### Graduate Faculty

**Christopher M. Bellas**, Ph.D., Associate Professor  
Criminology; criminal courts; jury decision-making; substantive and procedural law

**Susan Ann Clutter**, M.F.S., Associate Professor  
Crime scene investigation; blood spatter interpretation; forensic toxicology; fingerprint development at fire scenes

**John M. Hazy**, Ph.D., Professor  
Community health; life course issues; teaching effectiveness

**Monica Merrill**, Ph.D., Assistant Professor  
Criminology; victimization; inequalities

**Richard Lee Rogers**, Ph.D., Assistant Professor  
Social problems and criminology; organizational and economic sociology; statistics and research methods; social history; Anglo-American religious movements; ecological analysis

**Patricia Bergum Wagner**, J.D., Associate Professor, Chair  
Substantive criminal law; court structure; appellate practice

The graduate program in criminal justice adheres to the position that the administration of criminal justice is a continuous, integrated process from prevention of crime through completion of all legal intervention. The program is designed to provide society with individuals who have both a substantial awareness of the overall system and the essential competencies required to perform professional roles within it. To achieve this objective, the program broadens the student's knowledge of the total criminal justice process and provides professional education so that its graduates may assume positions of leadership within the criminal justice system. The program also prepares students for doctoral studies in criminal justice or criminology.

Students seeking the M.S. degree in criminal justice may elect either a thesis or nonthesis option. The Department of Criminal Justice and Forensic Sciences will accept courses from other departments offering 5000- or 6000-level courses. Students should see their graduate advisor or graduate coordinator when selecting these courses.

COURSE	TITLE	S.H.
<b>Study in the general substantive areas of criminal justice, met by completing the graduate core of:</b>		
CJFS 6910	Law and Criminal Justice	3
CJFS 6920	Criminal Justice Studies, Practices, and Theories	3
CJFS 6925	Administration and Management Theory	3
CJFS 6942	Research and Statistics in Health and Human Services	3
CJFS 6970	Applied Police Management	3

Any departure from this requires prior approval of the student's committee and graduate coordinator.

CJFS 6980	Managing Correctional Operations	3
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#### Study in courses outside the core

Graduate Research Paper		2
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Oral Exam (defense)		
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## Thesis Option

A minimum of 30 semester hours is required in this option, of which up to six hours may be thesis. No more than nine semester hours may be below the 6900 level.

## Non-Thesis Option

A minimum of 35 semester hours is required of which no more than 12 semester hours may be below the 6900 level. The nonthesis option will require a major graduate research paper worth two credits and an oral exam (defense) upon its completion.

## Learning Outcomes

1. Students will be able to assess the professional criminal justice literature.
2. Students will employ key criminal justice concepts to administrate programs and lead others.
3. Students will be able to assess legal situations that relate to the CJ system.
4. Students will be able to assess programs and public policies that relate to the CJ system.

## Graduate Courses

### CJFS 5802 Corrections Law and Liability 3 s.h.

Analysis and examination of legal mandates and restrictions affecting the field of corrections. History of the development of offender rights, current issues surrounding offender rights, and future concerns in this area. Jail and prison standards, accreditation standards, case law, and liability concerns.

**Prereq.:** CJFS 3702 or approval of instructor.

### CJFS 5814 Practice and Ethics in Forensic Science 3 s.h.

Overview of the forensic science discipline as it relates to the criminal justice system including discussion of legal aspects, constitutional considerations, expert testimony, the role of the expert witness, and ethical standards and dilemmas. Also includes discussion of current events and the evolution and future of the forensic sciences.

**Prereq.:** CJFS 3714 and CJFS 3714L.

**Gen Ed:** Capstone.

### CJFS 5820 Advanced Legal Research 3 s.h.

Advanced techniques in conducting legal research using standard reference tools as well as automated on-line services and the Internet. Analysis of findings of legal issues related to criminal justice, report and memoranda writing utilizing the Harvard University System of Citations, legal forms and terminology.

**Prereq.:** CJFS 3720 or approval of instructor.

### CJFS 5825 Criminal Procedures and Constitutional Issues 3 s.h.

Constitutional foundations of the American criminal justice process with special emphasis on recent Supreme Court decisions. Legal and practical applications of the laws of arrest, criminal procedure, search and seizure, court structures, and federal civil rights.

**Prereq.:** CJFS 3719 and must be a criminal justice major or have permission of chairperson.

### CJFS 5831 Violence in America 3 s.h.

Analysis of violence in America including official and unofficial statistics, types and levels of violence, research findings, and profiles of offenders. Case analysis of domestic violence, juvenile violence, gangs, and other forms of violence.

**Prereq.:** CJFS 3735.

### CJFS 5865 Gathering and Using Information in Criminal Justice 3 s.h.

Specialized communication skills to prepare criminal justice practitioners in information-gathering techniques, written presentation techniques, verbal and nonverbal communication skills within constitutional guidelines.

**Prereq.:** CJFS 3712 or CJFS 3765.

### CJFS 5875 Juvenile Justice System 3 s.h.

In-depth analysis of the specialized agencies and procedures developed to deal with problems of juveniles from a historical and philosophical perspective. Consideration of the juvenile court, community-based programs, institutionalization.

**Prereq.:** Senior standing.

### CJFS 5892 Comparative and International Criminal Justice Systems 3 s.h.

An examination of how countries' criminal justice systems are shaped and molded by elements of culture, religion, and political ideology of the area. Emphasis will be placed on comparing and contrasting the selected countries' criminal justice systems with those found in the United States of America.

**Prereq.:** Senior standing or permission of the chair.

### CJFS 6910 Law and Criminal Justice 3 s.h.

An historical analysis of criminal law as a social control. An overview of substantive criminal law and criminal procedural law in the United States.

### CJFS 6915 Advanced Criminology 3 s.h.

A comprehensive analysis of the causes of crime from an interdisciplinary perspective. Major criminological theories are considered in light of contemporary empirical research.

**Prereq.:** CJFS 2630.

### CJFS 6920 Criminal Justice Studies, Practices, and Theories 3 s.h.

A critical analysis of the field of criminal justice studies including crime statistics, crime causation, the criminal justice process, and the agencies involved.

**Prereq.:** CJUS 1500 Introduction to Criminal Justice.

### CJFS 6925 Administration and Management Theory 3 s.h.

Administration and management theory as applied to criminal justice agencies. Includes the functions of the executive, the nature of authority and leadership, organizational communication, and theories of employee motivation.

### CJFS 6940 Statistical Techniques in Health and Human Services 3 s.h.

A consideration of the courses of statistical information in the human resource systems and the limits of such data, with primary emphasis upon multivariate statistics and their application to the field.

**Prereq.:** CJFS 6942 or permission of instructor.

### CJFS 6942 Research and Statistics in Health and Human Services 3 s.h.

A consolidated statistical and research course in human services to design and use qualitative and quantitative research, use and interpret descriptive and inferential statistics, and evaluate the research of others.

**Prereq.:** CJFS 3710 and CJFS 3712 or permission of instructor.

### CJFS 6945 Research Methods in Health and Human Services 3 s.h.

An analysis of the design and execution of both quantitative and qualitative research in the human services, and the development of research designs most useful to human services research problems.

**Prereq.:** CJFS 6942 or permission of the instructor.

### CJFS 6950 Selected Topics Seminar in Criminal Justice 3 s.h.

Addresses specific topics relating to the crime problem and the criminal justice process. The topics may vary from semester to semester and will be announced prior to enrollment. This course is repeatable provided it is on different topics.

**CJFS 6955 Independent Study 3 s.h.**

Study under the personal supervision of a faculty member with the approval of the graduate director. May be repeated once.

**CJFS 6957 Readings in Criminal Justice 1-4 s.h.**

Extensive reading assignments in the student's interest area under the supervision of a graduate faculty member. May be repeated for no more than a total of six semester hours.

**Prereq.:** Approval of graduate director.

**CJFS 6960 Program Planning and Evaluation 3 s.h.**

A systematic review and evaluation of human services programs with special attention to the posting of questions in context; questions relating to the selections of design, method, and process of summative evaluation; and assessing the effectiveness of programs.

**CJFS 6970 Applied Police Management 3 s.h.**

Systematic examination of the principles and practices related to the management of police organizations. Examples will reflect problems of the urban and suburban environments, relationships with political entities, and internal control.

**CJFS 6971 Human Resources in Policing 3 s.h.**

Evaluation of police personnel systems, employment qualifications, psychiatric screening, polygraph examination, minority recruitment, and police cadet systems, personnel costs, educational requirements, lateral entry, mandated state minimum training standards, and federal involvement in police manpower.

**CJFS 6975 Applied Police Correction Management 3 s.h.**

Systematic examinations of the principles and practices of criminal justice organizations and the historical contexts of their implementation. Readings emphasize best practices, legal standards, and interdisciplinary cooperation affecting law enforcement and corrections, especially as they affect financial management, human resources, community relations, homeland security, and the treatment of vulnerable populations.

**Prereq.:** CJFS 6925.

**CJFS 6980 Managing Correctional Operations 3 s.h.**

Historical review of corrections in the United States. Modern theories of correctional administration and organization in both facilities and community settings. Special focus on financial operations, contagious illnesses, security, staff management, corruption, programming, architecture, hostage situations, and community concerns.

**CJFS 6981 Correctional Case Management 3 s.h.**

Case management, presentencing investigation, classification, and risk assessment. Analysis of theories of rehabilitation as applied in corrections. Special focus on training, recreation, health care and mental health services, religious programs, and special needs offenders, including sexual and drug offenders.

**CJFS 6985 Grant Writing 3 s.h.**

Insight into the methods, strategies, and techniques of grant writing, with emphasis on the proposal components and exploration of funding sources. Each student will exhibit competence in planning, developing, and evaluating a proposal as well as creating a draft of a grant proposal based on an actual Request for Proposals.

**Prereq.:** CJFS 6940, CJFS 6945, and CJFS 6975 or permission of instructor.

**CJFS 6990 Criminal Justice Public Policy Seminar 3 s.h.**

Types of policy and how policies are formulated are covered. The evaluation of policy, with attention to what constitutes good public policy. Special attention is given to the impact of crime control policies, particularly crime legislation and current laws.

**CJFS 6995 Field Experience in Criminal Justice 3-6 s.h.**

Supervised experience in an applied criminal justice setting. Permit required.

**Prereq.:** Majority of core and track courses completed and the recommendation of student's committee and approval by graduate director.

**CJFS 6995I Field Experience in Criminal Justice Israel 3-6 s.h.**

Supervised experience in an applied criminal justice setting. Permit required.

**Prereq.:** Majority of core and track courses completed and the recommendation of student's committee and approval by graduate director.

**CJFS 6998 Graduate Paper 2 s.h.**

Graduate-level research and a comparable paper under the supervision of the student's major professor.

**CJFS 6999 Research and Thesis 1-6 s.h.**

## Master of Science in Environmental Science

### Program Director

Dr. Felicia Armstrong

2080 Moser Hall

(330) 941-1385

fparmstrong@ysu.edu

### Program Description

The Environmental Science program offers a multidisciplinary, interdepartmental graduate program leading to a Master of Science degree. The program office is housed in Moser Hall and is administered by the Department of Geological and Environmental Sciences (GES). This program is intended for individuals who have undergraduate degrees in Environmental Science/science, other natural or social sciences, engineering, or health professions. It is designed to meet the needs of students and working professionals preparing for supervisory roles in environmental science (research and management), with emphasis on a risk-based approach to the solving of environmental problems. The curriculum requires students to broaden their knowledge with core courses in Environmental Science, to deepen their expertise with elective courses, and to demonstrate their abilities to prepare a scholarly thesis. This degree will benefit students who are planning careers with regulatory agencies, regulatory compliance and management, research facilities, and consulting firms providing state-of-the-art assessment, management, and remediation.

### Admission Requirements

- One year of college-level general chemistry with lab
- One semester of calculus
- A minimum of 15 semester hours of additional science courses with two of these additional courses containing a lab component (chemistry, biology, environmental science, geology, environmental engineering and/or physical geography).
- An cumulative undergraduate minimum grade point average of 3.0 (on a 4.0 scale) is required for admission. Students with a GPA of under 3.0 could be considered for provisional admission.
- Satisfactory performance on Graduate Record Examination (general test)
- Three letters of recommendation.

Applicants not satisfying the minimum admission requirements may be accepted provisionally at the discretion of the Department Graduate Committee. In those cases where the undergraduate preparation is deficient in three or fewer courses, students must satisfy the deficiencies by completing the equivalent undergraduate courses with a grade of B or better within the first year of study as a provisional graduate student.

Any student admitted with provisional status will be reviewed for regular graduate admission to the program at the completion of 9 semester hours of degree-credit coursework. Students with an undergraduate course deficiency greater than three courses must remove the deficiency as a post baccalaureate, undergraduate student.



## Graduate Faculty

**Isam E. Amin**, Ph.D., Professor

Ground water contamination and remediation; characterization and remediation of Mahoning River banks; sediment transport in rivers and streams; intra-state water conflicts

**Felicia P. Armstrong**, Ph.D., Associate Professor

Environmental chemistry of soils; water quality; ecotoxicology; soil remediation

**Jeffrey C. Dick**, Ph.D., Professor, Chair

Groundwater contamination; water quality characterization/baseline investigations and petroleum geology

**Alan M. Jacobs**, Ph.D., Professor

Environmental health sciences in public health

**Colleen McLean**, Ph.D., Associate Professor

Aqueous and environmental geochemistry; paleolimnology; biogeochemistry

**Ian J. Renne**, Ph.D., Associate Professor

Plant community ecology; invasive species; community structure; allelopathic systems; avian ecology

**Bradley A. Shellito**, Ph.D., Professor

Applications of geospatial technology (Geographic Information Science, remote sensing, global positioning systems, and 3D Modeling)

**Josef B. Simeonsson**, Ph.D., Professor

Analytical atomic and molecular spectroscopy; trace and ultratrace analysis; laser induced fluorescence spectroscopy; laser ionization spectroscopy; Raman spectroscopy; environmental analysis

## Degree Requirements

Environmental Science program requires courses that are designed to provide breadth in environmental science and understanding of environmental issues and regulations. Each student admitted to the program will meet with the coordinator to choose initial coursework and meet graduate faculty. It is highly recommended that new students enroll in ENST 6995 Introduction to Environmental Science Research. Each graduate student is required to select a thesis committee with the recommendation of his or her thesis advisor within the first year of full-time graduate study.

All students in the Environmental Science graduate program must have their course schedules approved by their thesis advisors every semester. A proposed course of study must be approved by the thesis committee. The course of study will be based on the student's area of specialization, background, and career interests.

The thesis committee will consist of three to five faculty members in appropriate fields of expertise and one non-faculty professional. The non-faculty member must qualify for appointment as an adjunct graduate faculty member at YSU. Research proposals and proposed course of study must be completed and approved by the thesis committee by the end of the second semester of full-time graduate study.

The thesis shall advance knowledge in environmental science and be applicable to the solving of environmental problems. The thesis requirement includes a formal document and a draft article in journal format suitable for publication submittal. A draft of the thesis must be reviewed by the thesis advisor then submitted to the thesis committee two weeks before the thesis defense. The thesis defense will comprise an oral presentation before the thesis committee for final thesis approval.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
ENST 6900	Advanced Environmental Studies	3
BIOL 5853	Biometry	3

Select two of the following:		6
ENST 5800	Environmental Impact Assessment	
ENST 5830	Risk Assessment	
ENST 5860	Environmental Regulations	
ENST 6901	Sources of Contamination	
ENST 6920	Environmental Compliance	
ENST 6921	Industry/Institutional Management for the Environmental Professional	
ENST 6931	Ecological Risk Assessment	

<b>Electives</b>		
Select an additional 15 semester hours. Elective courses can come from Environmental Science, Geology, Biology, Civil/Environmental Engineering, Geography, Chemistry or other disciplines recommended by the graduate committee.		15
Note: Additional ENST courses may be taken as electives.		
ENST 6995	Introduction to Environmental Science Research (recommended)	
ENST 5810	Environmental Safety (recommended)	
<b>Thesis</b>		
ENST 6990	Thesis	6
<b>Total Semester Hours</b>		<b>33</b>

All graduate students in Environmental Science are required to successfully pass a graduate exam during the second year of their graduate program. Currently the Environmental Professional Intern (EPI) exam is being utilized. This exam covers topics in environmental science with respect to chemistry, biology, regulations, analysis, and other environmental issues.

No more than nine (9) semester hours from the 5800 level (swing course) may be counted towards the Master of Science degree. (Note: More courses at the 5800 level can be taken, but only 9 s.h. count towards the 27 s.h. required for the Master's degree). Additional background courses (undergraduate or graduate) may be required as prerequisites for some of the graduate courses.

Credits earned for the Graduate Certificate in Environmental Studies may be applied to the Master of Science degree to the extent allowed by the School of Graduate Studies (normally nine semester hours). Students in the certificate program, who intend to pursue the Master's degree, must apply to and meet all the requirements for the Environmental Science Master of Science program.

## Learning Outcomes

Communicate effectively using the language, concepts, and models of environmental science in written, visual, and numerical formats.

Properly apply the scientific method to research an environmental problem and formulate conclusions.

Demonstrate ability to apply appropriate field-and laboratory-based methods (of acquiring, quantitatively and qualitatively analyzing and interpreting environmental data and information).

Apply environmental science research as demonstrated by the successful completion of the comprehensive exam and a Master's thesis.

## Graduate Courses

### ENST 5810 Environmental Safety 1 s.h.

The proper use of environmental monitoring instruments and personal protective gear. Participation in a series of realistic, hands-on simulation exercises that address a variety of waste clean-up situations. Class meets three hours per week.

**Prereq.:** ENST 2600 or equivalent experience.

**ENST 5820 Sustainability, Climate Change, and Society 3 s.h.**

This course explores environmental, economic, and social aspects of sustainable development, with an emphasis on economy and society. Through topics such as water, food, and climate change, we examine the role of humans and institutions in sustainable development and possibilities for reconfiguring relationships between our institutions and the natural world.

**Prereq.:** junior, senior or graduate level standing.

**ENST 5830 Risk Assessment 3 s.h.**

An in-depth study of human health and ecological risk assessment. Includes hazard identification, dose-response evaluation, exposure assessment, and the characterization, limitations, management, communication, and perceptions of risk. Standard procedures to conduct a site-specific baseline risk assessment, to calculate risk-based concentrations that may be used to develop preliminary remediation goals, and to evaluate human health risks during the implementation of remedial alternatives.

**Prereq.:** ENST 3700, ENST 5860, and senior or graduate standing.

**Gen Ed:** Capstone.

**ENST 5860 Environmental Regulations 3 s.h.**

An examination of federal and state regulations that relate to cleanup of abandoned waste sites, management of waste from current waste generators, development of new hazardous products and chemicals, safety and health issues, and control of pollution into air and water.

**Prereq.:** ENST 2600 or equivalent.

**ENST 5888 Environmental Biotechnology 4 s.h.**

Lectures will cover the use of microbes for solving environmental problems. In the laboratory, teams of students will design and implement experiments in bioremediation. This course is intended for students in biology, environmental studies, chemistry, and engineering. Two hours lecture and four hours lab.

**Prereq.:** CHEM 3719 or CEEN 3736.

**ENST 6900 Advanced Environmental Studies 3 s.h.**

A study of the principles and issues of environmental science, health, technology, and affairs. Topics will include contaminant chemistry; terrestrial and aquatic ecology; risks to human health; waste management; conservation; and sustainable development, energy, and pollution. Local, regional, and global issues will be studied.

**ENST 6901 Sources of Contamination 3 s.h.**

A study of the sources and fate and transport of air, water, and soil contaminants that have potential to adversely affect human health and the environment. Topics will include measurement of environmental parameters, data collection and reporting, interpretation of results, compliance issues, and economic implications.

**ENST 6905 Teaching Methods in Geology and Environmental Science 2 s.h.**

A required course for all Department of Geological and Environmental Sciences graduate teaching assistants. This course will provide guidance and instruction in teaching introductory laboratories in the department.

**ENST 6910 Environmental Management Systems Standards (ISO 14001) 1 s.h.**

Introduction to establishing a program to set internal industrial standards to identify, measure, and control the environmental impact of their activities, products, and services, including environmental policy, communication, legal requirements, training, documentation, and emergency preparedness.

**ENST 6920 Environmental Compliance 3 s.h.**

Regulatory compliance concerning operations of environmental and health and safety departments. RCRA permitting (NPDES and air emissions), landfilling, Right to Know, waste generation, storage, shipping (manifests and placarding), disposal of wastes, MSDS, OSHA regulations, safe work practices, hiring consultants (technical and legal), writing requests for proposals, and documenting and report writing.

**Prereq.:** ENST 5860, ENST 6900, or equivalent.

**ENST 6921 Industry/Institutional Management for the Environmental Professional 3 s.h.**

A comprehensive background in management principles and operations relating to the environmental professions. Topics include budgeting, staffing, scheduling, leadership, and quality assurance/control. The student will learn to write, evaluate, and implement technical and cost proposals for contracts and grants, scopes of work, operations plans, sampling and analysis plans, health and safety plans, job descriptions, resumes, statements of qualifications, mission statements, meeting agendas (for professionals and the general public), and other written and oral communications (reports, memoranda, memoranda of understanding, policy briefs, press releases, fact sheets, requests for information).

**Prereq.:** ENST 6900 or equivalent.

**ENST 6930 Risk Management 3 s.h.**

Using the principles of risk assessment, the student will learn to manage existing environmental risks in the workplace. Topics will include workplace health hazards; product liability; toxic tort claims; cleaning strategies for risk reduction such as brownfield redevelopment, voluntary action programs, alternative, and regulatory actions. Economic importance, resource allocation, technical feasibility, and public opinion will be discussed.

**Prereq.:** ENST 6900 and ENST 5830 or equivalent.

**ENST 6931 Ecological Risk Assessment 3 s.h.**

The student will examine environmental risks to nonhuman populations. Topics will include the study of measurements of adverse effects due to one or more stressors by examining population communities and ecosystems. Also, the class will study the following issues: threatened and endangered species, wetlands, endocrine disruption, multiple stressors, sediment and soil toxicity, conservative screening versus site-specific studies, and natural resource damage claims.

**Prereq.:** ENST 6900 and ENST 5830 or equivalent.

**ENST 6990 Thesis 1-6 s.h.**

Hours arranged. Applicable to master's degree in environmental studies. Research selected and supervised by departmental advisor and approved by graduate faculty of environmental studies program and graduate dean. May be repeated.

**ENST 6995 Introduction to Environmental Science Research 2 s.h.**

This course introduces the student to the fundamental and practical aspects of research, especially as they apply to environmental sciences. The course emphasizes research methodologies and ethics, how to review the literature, how to write a research proposal, and how research results are presented. The course will include presentations of the faculty research interests.

**Prereq.:** graduate standing or permission of instructor.

**ENST 6999 Special Topics in Environmental Science 1-3 s.h.**

Environmental science topics selected by faculty from fields of current research interest or of special emphasis. May be repeated with a different topic up to a total of six semester hours.

**Prereq.:** Permission of director.

## Master of Science in Mathematics

### Program Director

Dr. G. Jay Kerns  
620 Lincoln Building  
(330) 941-3310  
gkerns@ysu.edu

### Program Description

The Department of Mathematics and Statistics offers the M.S. degree in mathematics. Options for this degree include:

- predoctoral studies,
- applied mathematics,
- computer science,

- secondary mathematics,
- statistics, and
- actuarial science.

Graduate faculty members have a broad range of research interests in both pure and applied areas. The curriculum stresses theoretical as well as computational mathematics and is flexible enough to key a student's program to individual interests and abilities. Receiving a well-rounded education in mathematics, graduates can pursue a Ph.D., secure a position in government or industry, or further a teaching career. The department has extensive computing facilities that include microcomputers, workstations, mainframe, and access to supercomputers.

## Admission Requirements

In addition to the minimum College of Graduate Studies admission requirements, students must also have the following:

COURSE	TITLE	
A cumulative undergraduate cumulative grade point average of at least 3.0 (on a 4.0 scale) in all undergraduate mathematics and statistics courses.		
A completed sequence in standard calculus comparable to:		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
Previous courses in discrete structures and linear algebra comparable to:		
MATH 3715	Discrete Mathematics	3
MATH 3720	Linear Algebra and Matrix Theory	3
Previous course in abstract algebra comparable to:		
MATH 5821	Topics in Abstract Algebra	4
MATH 5851	Topics in Analysis	4
The Graduate Record Examination		

Students not satisfying all of the above may be admitted with provisional status subject to the approval of the graduate program director and the graduate dean.

## Graduate Faculty

**Guang-Hwa (Andy) Chang**, Ph.D., Professor  
Biostatistics

**Richard G. Goldthwait**, Ph.D., Assistant Professor  
Math education

**Jozsi Z. Jalics**, Ph.D., Associate Professor  
Computational neuroscience; mathematical biology; dynamical systems; partial differential equations

**G. Jay Kerns**, Ph.D., Professor  
Signed measures; infinite divisibility; exchangeability in probability and statistics; applications of stochastic processes

**Lucy Xiaojing Kerns**, Ph.D., Assistant Professor  
Simultaneous confidence bands; minimum effective doses; benchmark dose methodology

**Thomas L. Madsen**, Ph.D., Assistant Professor  
Abstract algebra; group theory; representation theory

**Nguyet Thi Nguyen**, Ph.D., Assistant Professor  
Financial models; Monte Carlo simulation; actuarial science

**Anita C. O'Mellan**, Ph.D., Professor  
Graph theory; combinatorics; early childhood mathematics education

**Alicia Prieto Langarica**, Ph.D., Associate Professor

Mathematical biology; agent-based modeling

**Stephen Rodabaugh**, Ph.D., Professor  
Foundations of topology and fuzzy logic: point-set, lattice-theoretic, and categorical methods

**Thomas Smotzer**, Ph.D., Professor  
Real analysis; measure theory; operator theory

**Angela Spalsbury**, Ph.D., Professor, Chair  
Functional analysis; operator theory; measure theory

**Jamal K. Tartir**, Ph.D., Professor  
Set-theoretic topology

**Thomas P. Wakefield**, Ph.D., Professor  
Character theory; actuarial science

**Eric J. Wingler**, Ph.D., Professor  
S.H. Real analysis; complex analysis; operator theory

**George Yates**, Ph.D., Professor  
Applied mathematics; partial differential equations; mathematical biology; nonlinear waves

- A minimum of 33 semester hours of credit excluding MATH 5821 Topics in Abstract Algebra and MATH 5851 Topics in Analysis
- A cumulative grade point average of at least 3.0
- Students entering without a prior course in abstract algebra must include MATH 5821 Topics in Abstract Algebra in their program, to be taken in the earliest available semester, and students entering without a prior course in theoretical analysis must include MATH 5851 Topics in Analysis in their program, to be taken in the earliest available semester. These courses are not included in the 33-semester-hour minimum requirement.
- The student's combined undergraduate and graduate programs must include a mathematics core comprising the following courses or their equivalent:

COURSE	TITLE	S.H.
MATH 5821	Topics in Abstract Algebra (taken in the earliest available semester)	4
MATH 5851	Topics in Analysis (taken in the earliest available semester)	4
MATH 5825	Advanced Linear Algebra	3
MATH 5852	Real Analysis 2	3
MATH 6996	Mathematical Project	1-3

- Satisfactory performance on written and oral examinations. The subject matter for these examinations must be approved by the Graduate Executive Committee. Additionally, the following distribution requirements apply:
  - Written exams in MATH 5852, Math 5825 and the first course in the student's chosen course sequence
  - Oral exam on thesis, or oral exam on a project and two courses
  - At least half of the hours of the courses examined must be at the 6900 level
- At least 17 hours of the student's approved program must be at the 6900 level. In addition to completing the courses which make up the mathematics core, students must complete at least one course sequence for depth and at least fifteen additional hours of elective courses to satisfy the breadth requirement for the degree. The course groupings are described below.
- MATH 6999 Thesis is highly recommended
- Before completing 12 semester hours, the student must submit the entire degree program for approval and evaluation by the Graduate Executive Committee in the Department of Mathematics and Statistics. Subsequent revisions to this program must be approved by the Graduate Executive

Committee. An abstract of a proposed thesis must be submitted for approval prior to registering for the course.

- Students must participate in an exit interview during the semester in which they plan on graduating. The exit interview will be conducted with one or more members of the Graduate Executive Committee and must be scheduled by the student prior to the thesis or project presentation.

## Course Sequences for Depth

The description of the recommended course sequences for depth will refer to the following list. The sequences offered depend upon student interest.

COURSE	TITLE	S.H.
Abstract Algebra		
MATH 6922	Advanced Topics in Group and Ring Theory	3
MATH 6923	Advanced Topics in Field Theory	3
Actuarial Mathematics		
STAT 6988	Modeling in Financial Economics	3
STAT 5802	Theory of Interest	3
Advanced Data Analysis		
STAT 6940	Advanced Data Analysis	3
STAT 6948	Linear Models	3
Differential Equations		
MATH 6955	Advanced Differential Equations	3
MATH 6957	Partial Differential Equations	3
Mathematical Statistics		
STAT 6943	Mathematical Statistics 1	3
STAT 6944	Mathematical Statistics 2	3
Operations Research		
MATH 5845	Operations Research	3
MATH 6942	Advanced Operations Research	3
Topology		
MATH 6980	Topology 1	3
MATH 6981	Topology 2	3

## Predocotrual Studies in Mathematics and Applied Mathematics

COURSE	TITLE	S.H.
MATH 6922	Advanced Topics in Group and Ring Theory	3
MATH 6923	Advanced Topics in Field Theory	3
MATH 6975	Complex Analysis 1	3
MATH 5852	Real Analysis 2	3
MATH 6980	Topology 1	3
STAT 6940	Advanced Data Analysis	3
MATH 6955	Advanced Differential Equations	3
STAT 6943	Mathematical Statistics 1	3
MATH 5861	Numerical Analysis 2	3
MATH 5845	Operations Research	3

### Electives

Select two or more sequences in areas of interest

## Statistics

COURSE	TITLE	S.H.
Core Requirements		
STAT 6940	Advanced Data Analysis	3
STAT 6948	Linear Models	3
STAT 6943	Mathematical Statistics 1	3
STAT 6944	Mathematical Statistics 2	3

### Electives

Select 9 additional hours of statistics courses. 9

## Actuarial Science

COURSE	TITLE	S.H.
Core Requirements		
STAT 5802	Theory of Interest	3
STAT 6943	Mathematical Statistics 1	3
STAT 6944	Mathematical Statistics 2	3

### Electives

Select from statistic and actuarial science course offerings

## Applied Mathematics

COURSE	TITLE	S.H.
Core Requirements		
STAT 6940	Advanced Data Analysis	3
MATH 6955	Advanced Differential Equations	3
STAT 6943	Mathematical Statistics 1	3
MATH 5861	Numerical Analysis 2	3
MATH 5845	Operations Research	3
Depth Requirement		
Select the second course in on e of the sequence		

## Secondary/Community College Mathematics

COURSE	TITLE	S.H.
STAT 6943	Mathematical Statistics 1	3
or		
STAT 6940	Advanced Data Analysis	3
MATH 6915	Mathematical Foundations	3
Select one of the following:		
MATH 6922	Advanced Topics in Group and Ring Theory	3
MATH 6923	Advanced Topics in Field Theory	3
MATH 6975	Complex Analysis 1	3
MATH 6965	Abstract Analysis 1	3
MATH 6980	Topology 1	3
MATH 6922	Advanced Topics in Group and Ring Theory	3
MATH 6923	Advanced Topics in Field Theory	3

Those students seeking certification should consult an advisor in the school of Education.

## Computer Science

Students in coursework in computer science in addition to mathematics should plan their graduate program in consultation with advisors in both the Department of Mathematics and Statistics and the Department of Computer Science and Information Systems.

## Accelerated MS Mathematics

Undergraduate students can apply for admission into the accelerated program for the MS in Mathematics after completing 78 semester hours with a GPA of 3.3 or higher. After being admitted into the program, students can take a maximum of nine semester hours of graduate coursework that can count toward both an bachelor's and master's degree from the Department of Mathematics and Statistics. The courses chosen to count for both undergraduate and graduate coursework must be approved by the Graduate Executive Committee within the Department upon admission into the program. An additional six hours of graduate coursework can be completed as an undergraduate and used exclusively for graduate credit.

## Learning Outcomes

Students will develop and demonstrate the ability to reason mathematically by constructing mathematical proofs and recognizing and analyzing accurate numerical data in appropriate core courses. Students will learn that truth in mathematics is verified by careful argument, and will demonstrate the ability to make conjectures and form hypotheses, test the accuracy of their work, and effectively solve problems.

Students will learn to identify fundamental concepts of mathematics as applied to science and other areas of mathematics, and to interconnect the roles of pure and applied mathematics.

Students will demonstrate that they can communicate mathematical ideas effectively, both orally and in writing, by completing a graduate project or thesis involving an investigative mathematical project, together with oral and written examinations.

Students in cooperative doctoral programs will demonstrate their ability to create significant, original mathematics.

## Graduate Courses

### **MATH 5821 Topics in Abstract Algebra 4 s.h.**

A course in abstract algebra aimed at developing a broad understanding of the subject. Credit will not be given for both MATH 3721 and MATH 5821.

**Prereq.:** MATH 3715 and MATH 3720.

### **MATH 5825 Advanced Linear Algebra 3 s.h.**

A study of abstract vector spaces, linear transformations, duality, canonical forms, the spectral theorem, and inner product spaces.

**Prereq.:** MATH 3721.

### **MATH 5828 Number Theory 3 s.h.**

A study of congruences, Diophantine equations, quadratic residues, special number theory functions, and selected applications.

**Prereq.:** MATH 3721.

### **MATH 5835 Introduction to Combinatorics and Graph Theory 3 s.h.**

The pigeonhole principle; permutations, combinations, the binomial theorem; the inclusion-exclusion principle; recurrence relations; graphs and digraphs, paths and cycles, trees, bipartite graphs and matchings.

**Prereq.:** MATH 3715 and MATH 3720.

### **MATH 5845 Operations Research 3 s.h.**

An introduction to operations research with emphasis on mathematical methods. Topics may include: linear programming, sensitivity analysis, duality theory, transportation problems, assignment problems, transshipment problems, and network problems.

**Prereq.:** MATH 3715 and MATH 3720.

### **MATH 5851 Topics in Analysis 4 s.h.**

A course in analysis aimed at developing a broad understanding of the subject. Credit will not be given for both MATH 3751 and MATH 5851.

**Prereq.:** MATH 2673, MATH 3720, and MATH 3715.

### **MATH 5852 Real Analysis 2 3 s.h.**

Uniform convergence of sequences of functions and some consequences; functions on  $n$ -space: derivatives in vector spaces, mean value theorem, Taylor's formula, inverse mapping theorem, implicit mapping theorem.

**Prereq.:** MATH 3720 and MATH 3751 or equivalent.

### **MATH 5860 Topics in Numerical Analysis 3 s.h.**

A course in numerical analysis aimed at developing a broad understanding of the subject. Credit will not be given for both MATH 3760 and MATH 5860.

**Prereq.:** MATH 3720 and CSIS 2610.

### **MATH 5861 Numerical Analysis 2 3 s.h.**

Numerical methods of initial-value problems, eigenvalue problems, iterative methods for linear and nonlinear systems of equations, and methods involving least squares, orthogonal polynomials, and fast Fourier transforms.

**Prereq.:** MATH 2673 and MATH 3760 or equivalent.

### **MATH 5875 Complex Variables 3 s.h.**

Complex numbers and their geometric representation, analytic functions of a complex variable, contour integration, Taylor and Laurent series, residues and poles, conformal mapping.

**Prereq.:** MATH 3751 or equivalent.

### **MATH 5895 Selected Topics in Mathematics 2-3 s.h.**

The study of a standard mathematical topic in depth or the development of a special area of mathematics. May be repeated twice.

**Prereq.:** 24 s.h. of mathematics applicable to the mathematics major including either MATH 3721 or MATH 3751.

### **MATH 5895W Selected Topics in Mathematics Topology 2 2-3 s.h.**

The study of a standard mathematical topic in depth or the development of a special area of mathematics. May be repeated twice.

**Prereq.:** 24 s.h. of mathematics applicable to the mathematics major including either MATH 3721 or MATH 3751.

### **MATH 6905 Teaching Practicum 1 s.h.**

Intensive preparation for teaching lower-level mathematics courses, featuring formal instruction and orientation on teaching issues, evaluated presentations, mentored classroom instruction, and weekly teaching seminars. Topics include course design, policies, syllabi, grading; classroom teaching problems; orientation in Mathematics Assistance Center, specific lower-level mathematics courses, online tutorial services. Required of and limited to graduate assistants in the Department of Mathematics and Statistics. To be taken each semester student is a graduate assistant. Grading is S/U. Does not count toward credit in the program.

### **MATH 6910 Advanced Engineering Mathematics 1 3 s.h.**

Theory and solution techniques used in engineering applications. Topics include brief review of ordinary differential equations and linear algebra; vector calculus, integral theorems, complex analysis, series, residue theory, potential theory, special functions, integral transforms, partial differential equations and applications in mathematical modeling.

**Prereq.:** MATH 3705.

### **MATH 6911 Advanced Engineering Mathematics 2 3 s.h.**

Theory and solution techniques used in engineering applications. Topics include brief review of ordinary differential equations and linear algebra; vector calculus, integral theorems, complex analysis, series, residue theory, potential theory, special functions, integral transforms, partial differential equations and applications in mathematical modeling.

**Prereq.:** MATH 6910.

### **MATH 6915 Mathematical Foundations 3 s.h.**

Order-theoretic and monadic foundations of mathematics: ordered structures; topologies; powerset operators of a function; applications to continuity, compactness, algebra, logic, and calculus.

**Prereq.:** MATH 3721 Abstract Algebra I and MATH 3751 Real Analysis I, or permission of graduate coordinator.

### **MATH 6922 Advanced Topics in Group and Ring Theory 3 s.h.**

A continuation of MATH 5821 with special emphasis on groups acting on sets, Sylow's Theorem and its applications, ring homomorphisms, ideals, and polynomial rings. Credit will not be given for MATH 4822 and MATH 6922.

**Prereq.:** MATH 3721 or MATH 5821.

### **MATH 6923 Advanced Topics in Field Theory 3 s.h.**

This course introduces the major results in advanced field theory. These results include splitting fields, algebraic extensions, finite extensions, cyclotomic polynomials, and finite fields. Credit will not be given for MATH 4823 and MATH 6923.

**Prereq.:** MATH 4822 or MATH 6922.

### **MATH 6924 Galois Theory 3 s.h.**

An introduction to Galois Theory with special emphasis on the Galois group, the Fundamental Theorem of Galois Theory, and radical extensions.

**Prereq.:** MATH 4823 or MATH 6923.

### **MATH 6928 Advanced Number Theory 3 s.h.**

Advanced study of number theory: theory and distribution of primes, computational number theory, and additive number theory.

**Prereq.:** MATH 5828.

**MATH 6930 Differential Geometry 3 s.h.**

Classical differential geometry of curves and surfaces, differentiable manifolds with tensors.

**Prereq.:** MATH 5852.

**MATH 6942 Advanced Operations Research 3 s.h.**

Topics may include integer programming, advanced linear programming, nonlinear programming, dynamic programming, queuing theory, Markov analysis, game theory, and forecasting models.

**Prereq.:** MATH 5845 and STAT 3743 Probability and Statistics.

**MATH 6955 Advanced Differential Equations 3 s.h.**

Proofs of existence and uniqueness of nonautonomous, nonlinear equations. Additional topics may include advanced linear systems, partial differential equations, and integral equations.

**Prereq.:** MATH 5852 and either MATH 3705 Differential Equations or MATH 4855, or permission of graduate coordinator.

**MATH 6957 Partial Differential Equations 3 s.h.**

An introduction to partial differential equations (PDE) and their applications. The classification of the basic types of linear partial differential equations, development of how boundary and initial conditions affect solutions, exploration, and application of solution techniques for PDEs and explosions in orthogonal functions will be presented.

**Prereq.:** MATH 3705 and MATH 3720 or equivalent .

**MATH 6965 Abstract Analysis 1 3 s.h.**

Lebesgue integration and measure on the real line. General measure theory and functional analysis, including the Radon-Nikodym theorem, the Fubini theorem, the Hahn-Banach theorem, the closed graph and open mapping theorems, and weak topology.

**Prereq.:** MATH 5852 and either MATH 4880 or MATH 6915 or permission of graduate coordinator.

**MATH 6975 Complex Analysis 1 3 s.h.**

Analytic and meromorphic functions of a complex variable, contour integration, the Cauchy-Goursat theorem, Taylor and Laurent series, residues and poles, conformal mapping. Credit will not be given for both MATH 5875 and MATH 6975.

**Prereq.:** MATH 3751 Real Analysis I, or permission of graduate coordinator.

**MATH 6980 Topology 1 3 s.h.**

Basic concepts of topological spaces and mappings between them, including compactness, connectedness, and continuity. Credit will not be given for both MATH 4880 and MATH 6980.

**Prereq.:** MATH 3721 Abstract Algebra I and MATH 3751 Real Analysis I, or permission of graduate coordinator.

**MATH 6981 Topology 2 3 s.h.**

Separation, metrization, compactification. Additional topics will be selected from point-set topology, fuzzy topology, algebraic topology, combinatorial topology, topological algebra.

**Prereq.:** MATH 4880 or MATH 6980, or permission of graduate coordinator.

**MATH 6990 Independent Study 1-3 s.h.**

Study under the supervision of a staff member. May be repeated.

**Prereq.:** Consent of graduate coordinator.

**MATH 6995 Special Topics 1-3 s.h.**

Specialized topics selected by the staff. May be repeated up to 12 semester hours.

**Prereq.:** Permission of graduate coordinator and department chair.

**MATH 6996 Mathematical Project 1-3 s.h.**

Individual research project culminating in a written report or paper, though not as broad in scope as a thesis. May be repeated once if the second project is in a different area of mathematics.

**MATH 6999 Thesis 3 s.h.**

A student may register for six semester hours in one semester or for three semester hours in each of two semesters.

**MATH 7005 Advanced Topics in Categorical Topology 3 s.h.**

Content varies with each offering. Implements ideas from MATH 6915, MATH 6980, MATH 6981, and studies categorical methods in topology and related concrete categories. Emphasis on current literature and open questions. May be repeated with approval of graduate coordinator.

**Prereq.:** MATH 6915, MATH 6980, MATH 6981, or equivalent, or permission of the graduate coordinator.

**MATH 7015 Advanced Topics in Foundations of Topology 3 s.h.**

Content varies with each offering, implements ideas from MATH 6915, MATH 6980, MATH 6981, and studies foundations of topology from a variety of viewpoints (algebraic, categorical, logical, order theoretic, powerset theoretic, set theoretic, etc.). Emphasis on current literature and open questions. May be repeated with approval of graduate coordinator.

**Prereq.:** MATH 6915, MATH 6980, MATH 6981, or equivalent, or permission of graduate coordinator.

**MATH 7025 Advanced Topics in General Topology 3 s.h.**

Content varies with each offering, implements ideas from MATH 6915, MATH 6980, MATH 6981, and studies various topics in point-set topology. Emphasis on current literature and open questions. May be repeated with approval of graduate coordinator.

**Prereq.:** MATH 6980, MATH 6981, or equivalent, or permission of graduate coordinator.

**MATH 7035 Advanced Topics in Lattice-Valued Topology 3 s.h.**

Content varies with each offering. Implements ideas from MATH 6915, MATH 6980, MATH 6981, and studies topology from the standpoint of lattice-valued (fuzzy) subsets. Emphasis on current literature and open questions. May be repeated with approval of graduate coordinator.

**Prereq.:** MATH 6915, MATH 6980, MATH 6981, or equivalent, or permission of the graduate coordinator.

**MATH 7045 Advanced Topics in Topological Analysis 3 s.h.**

Content varies with each offering. Implements ideas from MATH 6915, MATH 6965, MATH 6966, MATH 6980, MATH 6981, and studies the overlap between topology and abstract analysis (topological games, topological groups, separate versus joint continuity, etc.). Emphasis on current literature and open questions. May be repeated with approval of graduate coordinator.

**Prereq.:** MATH 6915, MATH 6965, MATH 6980, MATH 6981, or equivalent, or permission of graduate coordinator.

**MATH 7055 Seminar in Topology and Abstract Analysis 3 s.h.**

Content varies with each offering. Implements ideas from MATH 6915, MATH 6930, MATH 6965, MATH 6980, MATH 6981, MATH 6984, and focuses on current research activities of seminar participants. Student registrants are expected to make at least one major presentation each month of the term. May be repeated with approval of graduate coordinator.

**Prereq.:** Permission of graduate coordinator.

## Master of Science in Education in Counseling

### Introduction

The counseling program prepares individuals as professional counselors in the areas of clinical mental health counseling, school counseling, student affairs and college counseling, and addiction counseling. Our program is designed to prepare graduates who have necessary knowledge, skills, and dispositions to best serve in mental health centers, schools, recovery centers, and colleges. Our program is exemplified by the quality and diversity of classroom instruction, field experiences, program options, students, faculty and the outstanding reputation of graduates in the community. The required core courses are those considered to represent basic knowledge and skills essential for professional counselors in all environments. The common CACREP core includes knowledge and skills in:

- professional orientation and ethics
- human growth and development

- social and cultural diversity
- helping relationships (e.g., counseling theory, counseling methods)
- career development
- group work
- assessment
- research and program evaluation

The Counseling Program also maintains the Community Counseling Clinic that provides free or reduced cost counseling services to residents of the Youngstown area. All students in the clinical, school, addiction and college counseling options take one practicum course and counsel clients via the clinic during their first practicum experience. We have a strong connection with alumni, program supervisors, agencies and schools, and community leaders who support the profession of counseling in the Youngstown area.

For more information about the Department of Counseling, School Psychology and Educational Leadership contact the Department Office at 330-941-3257 or visit our Department website (<http://catalog.yzu.edu/undergraduate/colleges-programs/college-education/department-counseling-special-education-school-psychology>).

## Welcome

Our program is designed to prepare graduates that have necessary knowledge, skills, and dispositions to best serve in mental health centers, schools, recovery centers, and colleges in the area. Our program seeks to meet the Addiction Counseling, Clinical Mental Health Counseling, School Counseling, Student Affairs & College Counseling needs of Northeast Ohio, Western Pennsylvania and other areas of the state/country.

We are CACREP accredited and nationally awarded - 2015 ACES Outstanding Counselor Education Program Award and the 2014 NCACES Innovative Counselor Education Program Award. Our program is exemplified by the quality and diversity of classroom instruction, field experiences, program options, students, faculty and the outstanding reputation of graduates in the community. We have a 45 year history and over 1500 master's degree graduates who have served the area as licensed professional clinical counselors, licensed/certified school counselors, licensed/certified chemical dependency counselors, student affairs professionals, professors, agency directors, and public servants. We have a strong connection with alumni, program supervisors, agencies and schools, and community leaders who support the profession of counseling in the Youngstown area. Master's students will find a unique educational experience that prepares them for employment and/or advanced study in Counseling. I encourage you to review the website and to contact the program director with any questions.

Jake J. Protivnak, Ph.D.

Chair / Professor

Department of Counseling, School Psychology and Educational Leadership  
(330) 941-1936  
[jjprotivnak@ysu.edu](mailto:jjprotivnak@ysu.edu)

## Program Director

For specific questions about the Master of Science in Education Counseling program, please contact the program director:

Matthew Paylo, Ph.D., Associate Professor

3312 Beeghly Hall  
(330) 941-3264  
[mpaylo@ysu.edu](mailto:mpaylo@ysu.edu)

## Addiction Counseling

The Addiction Counseling Program prepares students to work in a variety of community settings, including addiction/recovery centers, residential/community mental health centers, hospitals, employee assistance programs, and private practice. Students are taught to diagnose and treat mental and emotional disorders using a variety of interventions and methods. Students

within this program focus on all areas of addiction including drug and alcohol, gambling, sexual, and other process addiction. The Addiction Counseling Program is currently accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP) under the 2009 standards for Community Counseling Programs as a Community Counseling program. The CACREP 2009 standards provide a new CACREP specialty in Addiction Counseling. Completion of this program will satisfy the educational portion of the requirements for Professional counselor and Professional Clinical Counselor licensure by the Ohio Counselor, Social Worker, and Marriage and Family Therapist Board. In addition to the 63 semester hours of coursework, students complete experiential activities early in the program, a practicum, and a 600-hour internship in one of a variety of addiction settings in Northeast Ohio or Western Pennsylvania.

## Clinical Mental Health Counseling

The Clinical Mental Health Counseling Program prepares students to work with children, adolescents, and/or adults and are employed in a variety of settings, including:

- community mental health centers
- hospitals
- addiction/recovery centers
- employee assistance programs
- private practices

Students are taught to diagnose and treat mental and emotional disorders using a variety of interventions and methods. Students are also taught ways to facilitate clients' growth and wellness, and how to help people live optimally as they move through developmental changes. The Clinical Mental Health Counseling program is currently accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP). A completed 600-hour internship in an appropriate community setting is required. Students interested in clinical mental health counseling complete a 63-semester-hour curriculum that is recognized by the state of Ohio's Counselor, Social Worker, and Marriage and Family Therapist Board. The curriculum enables graduates to pursue Ohio Professional Counselor licensure and Professional Clinical Counselor licensure. Students seeking counselor licensure in other states, such as Pennsylvania, have the responsibility to ensure that they meet the requirements of those particular states.

## School Counseling

The School Counseling option prepares students to work in public or private K-12 education settings. The program is designed to help students with or without teaching backgrounds to support the academic, career, and personal/social development of all students within a school system. The program has an urban focus and seeks to prepare students who understand the impact of poverty and culture on disenfranchised populations. The School Counseling program is currently accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP). The program meets the education requirements for school counselor licensure in the state of Ohio. Students seeking school counselor licensure who do not have teacher certification in Ohio must have completed an approved school counseling program with a one-year induction process. Students must also pass the school counseling specialty portion of the Praxis Exam administered by Educational Testing Service for the State of Ohio or any other state required standardized testing. In addition to the 54 semester hours of coursework, students complete experiential activities early in the program, a practicum, and a 600-hour internship in one of a variety of school counseling settings in Northeast Ohio or Western Pennsylvania. Students seeking school counselor licensure/certification in other states, such as Pennsylvania, have the responsibility to ensure that they meet the requirements of those particular states.

## Student Affairs and College Counseling

The Student Affairs & College Counseling program option prepares entry level student affairs practitioners and college counselors with the knowledge, skills, and practical experiences to facilitate the learning and development of college students. Preparation is guided by an understanding of student affairs and college counseling history and research, college student development theory, legal and ethical issues, college student diversity, current issues, administrative and leadership components, assessment practices, and an understanding of the dynamic nature of higher education. The Student Affairs and College Counseling program is currently accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP). Graduates from the Student Affairs & College Counseling program option pursue careers as professionals at college and universities across the country. Recent graduates have been:

- academic advisors
- career services coordinators
- international recruiters
- residence directors
- area coordinators
- directors of residence life
- directors of student activities
- faculty members

Individuals who complete the 66 hour licensure option are prepared to work with college students in community mental health centers, hospitals, addiction/recovery centers, employee assistance programs and private practices. Individuals are taught to diagnose and treat mental and emotional disorders using a variety of interventions and methods. Completion of the 66 semester hour licensure track will satisfy the educational portion of the requirements for licensure as a Professional Counselor and a Professional Clinical Counselor by the Ohio Counselor, Social Worker, and Marriage and Family Therapist Board. Individuals complete experiential activities early in the program, a practicum, and a 600-hour internship in one of a variety of college and university settings in Northeast Ohio or Western Pennsylvania.

## Mission

The mission of the Counseling Program is to educate students, and to help them develop into counselors and related professionals who are sensitive to the impacts of human development, culture, and context upon students and consumers of counseling services; who are caring and compassionate counselors and people; who are self-reflective; who promote opportunity and social justice for the impoverished urban and rural populations; and, who are committed to empowering consumers of counseling services to thrive, and to achieve their fullest potential.

The Counseling Program advocates equality of opportunity for all persons. The curriculum and all educational experiences are designed to educate counselors in understanding and applying various counseling methods and techniques to aid a multicultural and diverse population with psychological, educational, vocational, and personal concerns. The Counseling Program fosters a learning environment that is challenging for both personal and professional development, humane in its emphasis upon respect for the dignity and worth of the individual, and realistic through its emphasis upon integration of academic, clinical, and field-based learning.

Program faculty are involved in scholarship, and university, professional, and community service, and to use those involvements to mentor students, to enhance students' learning experiences, to serve the community, the counseling profession, and consumers of counseling services who reside in northeast Ohio.

## Accreditation

The Counseling Program emphasizes high standards of professional competence. The Counseling Program continues to remain committed

to its stated mission through ongoing accreditations by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), and National Council for Accreditation of Teacher Education (NCATE). The Counseling Program also emphasizes ethical practice and keeps with state and national standards for certification and licensure for practice in educational, mental health and social service environments. Department programs have full approval by the Ohio Counselor, Social Worker, and Marriage and Family Therapists Board (OCSWMFT), and the Ohio Department of Education (ODE). The Department engages in ongoing program development and refinement based on accrediting bodies' and licensure boards' developments and recommendations, and sensitivity to licensure requirements and legal and ethical issues is a priority.

Our program is fully accredited by CACREP through 2023. Our last site visit was December 4, 2014 and we will have our next campus visit prior to the date of our next accreditation review in 2023.

## Admission Requirements

Students from a variety of undergraduate majors (i.e. psychology, social work, education, communication, sociology, religion, philosophy, business, general studies, etc.) may pursue a master's degree in counseling. Undergraduate and/or graduate grade point average, a letter of intent, letters of recommendation, and a required interview are important factors in determining the admissibility of an applicant to the counseling degree program. Applicants will be interviewed by members of the Counseling Admissions Committee and must meet the standards prescribed in the counseling program's admission policies. The following are the admission requirements:

- Applicants must have earned above a 2.7 grade-point average. (If an applicant's GPA is slightly below the minimum required, an applicant may include a GRE or MAT score to have their application reviewed.)
- Letter of Intent (approximately 4 pages double-spaced) with response to the following items:
  - What factors are motivating you to pursue a masters degree in Counseling at this time?
  - Please give an example of when you have determined to make desired changes in your life. What motivated you to seek this change and what obstacles did you overcome?
  - What do you believe are the most important counseling skills for helping a culturally-different individual?
- The Counseling Program offers four (4) options; Addiction Counseling, Clinical Mental Health Counseling, School Counseling, and Student Affairs/College Counseling. Which Counseling Program option(s) are you most interested in pursuing? What is your motivation to specialize in this area and what type of work would you like to be doing in 5 years?
- Three Letters of Reference or Reference forms, at least two of which should be prepared by current or former faculty
- Official transcripts of all undergraduate or graduate work completed
- Counseling Interview

## Graduate Faculty

**Kristin L. Bruns**, Ph.D., Assistant Professor

Student affairs; college counseling; suicide prevention; protective factors

**Victoria E. White Kress**, Ph.D., Professor

Self-injurious behavior; complex psychological trauma; child abuse, domestic violence, rape/sexual trauma survivors; DSM; strength-based/creative counseling interventions

**Don Martin**, Ph.D., Professor

Academic and social skills among students of poverty; neuropsychology rehabilitation of stroke and CNS disorders; sports psychology with emphasis on D1 athletes

**Kenneth L. Miller**, Ph.D., Professor



Measurement of cultural bias and discrimination; child abuse; technology use in clinical supervision; gender equity

**Matthew Paylo, Ph.D., Associate Professor**

Child and adolescent treatment; qualitative research; residential and prison mental health; advocacy and social justice issues

**Jake J. Protivnak, Ph.D., Professor, Acting Chair**

School counseling; professional advocacy and development in counselor education; ethical issues; career development

**Amy E. Williams, Ph.D., Assistant Professor**

Addiction counseling; quantitative research methodology; counseling theory

Students are required to complete appropriate coursework for their program option, including satisfactory completion of the counseling comprehensive examination prior to beginning their field placements. Coursework related to specialized cognate areas (e.g., electives and/or thesis) serve to enhance each program option.

Twelve semester hours of internship are required. Since this requirement entails 20 hours per week at the internship site, students who are employed full time may need to arrange for accommodations with their employers to fulfill this requirement.

## Addiction Counseling Program Curriculum

1. Internship placement involves a minimum of 600 clock hours completed over two semesters. COUN 7002 Clinical Mental Health Counseling Practicum 2 is to be completed the semester immediately prior to beginning the internship. Students are to apply for their field placement for the fall or summer semesters no later than the fourth week of the spring semester. (Application forms are online and should be submitted to the internship coordinator.) If a student would like to begin his or her field placement in the spring semester, the student should apply no later than the fourth week of the fall semester. Students who fail to submit their field placement application form by the deadline will not be permitted to complete their field placement during the specified semester. For further information refer to the appropriate *Fieldwork Handbook*.
2. Not all courses are offered every semester. It is the student's responsibility to carefully plan his or her program of study in order to meet all prerequisite course and graduation requirements.
3. All candidates are required to purchase a Task Stream account to complete the critical task for each courses which is essential for the CACREP accreditation.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
COUN 5898	Orientation and Ethical Issues in Community Counseling (take within the first 3 semesters)	3
COUN 6900	Counseling Methods and Practice	3
COUN 6902	Theory and Foundation of Addictions Counseling	3
COUN 6903	Addictions Counseling: Treatment and Intervention	3
COUN 6910	Human Development and Family Systems Counseling	3
COUN 6962	Counseling Theory	3
COUN 6964	Appraisal Techniques in Counseling	3
COUN 6968	Research in Counseling	3
COUN 6972	Career Counseling	3
COUN 6973 & 6973L	Group Counseling Theory and Practice and Group Counseling Laboratory	3
COUN 6976	Social and Cultural Issues in Counseling	3
COUN 6980	Diagnosis of Mental Disorders	3
COUN 7001	Counseling Practicum 1	3
COUN 7002	Clinical Mental Health Counseling Practicum 2	3
COUN 7031	Clinical Psychopathology and Treatment	3

COUN 7034	Advanced Evaluation of Mental and Emotional Status	3
COUN 7037	Counseling and Psychopharmacological Treatments of Mental and Emotional Disorders	3
or COUN 7003	Counseling Children and Adolescents	
COUN 7041	Case Conceptualization, Treatment Planning, and Clinical Supervision	3
<b>Internship</b>		
COUN 7010	Clinical Mental Health Counseling Internship	12
<b>Total Semester Hours</b>		<b>66</b>

## Comprehensive examination prerequisites

COURSE	TITLE	S.H.
COUN 5898	Orientation and Ethical Issues in Community Counseling	3
COUN 6900	Counseling Methods and Practice	3
COUN 6910	Human Development and Family Systems Counseling	3
COUN 6962	Counseling Theory	3
COUN 6964	Appraisal Techniques in Counseling	3
COUN 6968	Research in Counseling	3
COUN 6972	Career Counseling	3
COUN 6973 & 6973L	Group Counseling Theory and Practice and Group Counseling Laboratory	3
COUN 6976	Social and Cultural Issues in Counseling	3
COUN 6980	Diagnosis of Mental Disorders	3

## Clinical Mental Health Counseling Program Curriculum

1. Internship placement involves a minimum of 600 clock hours completed over two semesters. COUN 7002 Clinical Mental Health Counseling Practicum 2 is to be completed the semester immediately prior to beginning the internship. Students are to apply for their field placement for the fall or summer semesters no later than the fourth week of the spring semester. (Application forms are online and should be submitted to the internship coordinator.) If a student would like to begin his or her field placement in the spring semester, the student should apply no later than the fourth week of the fall semester. Students who fail to submit their field placement application form by the deadline will not be permitted to complete their field placement during the specified semester. For further information refer to the appropriate *Fieldwork Handbook*.
2. Not all courses are offered every semester. It is the student's responsibility to carefully plan his or her program of study in order to meet all prerequisite course and graduation requirements.
3. All candidates are required to purchase a Task Stream account to complete the critical task for each courses which is essential for the CACREP and CAEP accreditation.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
COUN 5898	Orientation and Ethical Issues in Community Counseling (take within the first 3 semesters)	3
COUN 6900	Counseling Methods and Practice	3
COUN 6902	Theory and Foundation of Addictions Counseling	3
or COUN 6903	Addictions Counseling: Treatment and Intervention	
COUN 6910	Human Development and Family Systems Counseling	3
COUN 6962	Counseling Theory	3
COUN 6964	Appraisal Techniques in Counseling	3
COUN 6968	Research in Counseling	3
COUN 6972	Career Counseling	3
COUN 6973 & 6973L	Group Counseling Theory and Practice and Group Counseling Laboratory	3

COUN 6976	Social and Cultural Issues in Counseling	3
COUN 6980	Diagnosis of Mental Disorders	3
or COUN 7013	Topical Seminar in Counseling	
COUN 7001	Counseling Practicum 1	3
COUN 7002	Clinical Mental Health Counseling Practicum 2	3
COUN 7031	Clinical Psychopathology and Treatment	3
COUN 7034	Advanced Evaluation of Mental and Emotional Status	3
COUN 7037	Counseling and Psychopharmacological Treatments of Mental and Emotional Disorders	3
or COUN 7003	Counseling Children and Adolescents	
COUN 7041	Case Conceptualization, Treatment Planning, and Clinical Supervision	3
<b>Internship</b>		
COUN 7010	Clinical Mental Health Counseling Internship	12
<b>Total Semester Hours</b>		<b>63</b>

### Comprehensive examination prerequisites

COURSE	TITLE	S.H.
COUN 5898	Orientation and Ethical Issues in Community Counseling	3
COUN 6900	Counseling Methods and Practice	3
COUN 6910	Human Development and Family Systems Counseling	3
COUN 6962	Counseling Theory	3
COUN 6964	Appraisal Techniques in Counseling	3
COUN 6968	Research in Counseling	3
COUN 6972	Career Counseling	3
COUN 6973 & 6973L	Group Counseling Theory and Practice and Group Counseling Laboratory	3
COUN 6976	Social and Cultural Issues in Counseling	3
COUN 6980	Diagnosis of Mental Disorders	3

### School Counseling Program Curriculum

1. Internship placement involves a minimum of 600 clock hours completed over two semesters. COUN 7007 School Counseling Practicum 2 is to be completed in the fall semester immediately prior to beginning internship. Students are to apply for their field placement for the fall or summer semesters no later than the fourth week of the spring semester. (Application forms are online and should be submitted to the internship coordinator.) Students who fail to submit their field placement application form by the deadline will not be permitted to complete their field placement during the specified semester. For further information refer to the appropriate *Fieldwork Handbook*.
2. Internships must be completed in approved educational settings. In order to provide a comprehensive experience, Practicum II/Internship are only offered beginning in the fall semester of the final year in the program. This experience is comprised of 750 supervised hours in an approved setting in an August through June format.
3. Not all school counseling courses are offered every semester. Students are responsible for carefully planning their programs of study in order to meet all prerequisite course and graduate requirements.
4. Students are required to purchase a Task Stream account to complete the critical tasks for each course which is essential for CACREP and CAEP.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
COUN 6900	Counseling Methods and Practice	3
COUN 6910	Human Development and Family Systems Counseling	3
COUN 6961	Orientation and Ethical Issues in School Counseling (take within the first 3 semesters)	3
COUN 6962	Counseling Theory	3

COUN 6964	Appraisal Techniques in Counseling	3
COUN 6968	Research in Counseling	3
COUN 6972	Career Counseling	3
COUN 6973 & 6973L	Group Counseling Theory and Practice and Group Counseling Laboratory	3
COUN 6976	Social and Cultural Issues in Counseling	3
COUN 7001	Counseling Practicum 1	3
COUN 7003	Counseling Children and Adolescents	3
COUN 7018	Diagnosis and Treatment of Children and Adolescents	3
COUN 7019	School Counseling Program Development	3
COUN 7007	School Counseling Practicum 2	3
<b>Internship</b>		
COUN 7010	Clinical Mental Health Counseling Internship	12
<b>Total Semester Hours</b>		<b>54</b>

### Comprehensive examination prerequisites

COURSE	TITLE	S.H.
COUN 6900	Counseling Methods and Practice	3
COUN 6910	Human Development and Family Systems Counseling	3
COUN 6961	Orientation and Ethical Issues in School Counseling	3
COUN 6962	Counseling Theory	3
COUN 6964	Appraisal Techniques in Counseling	3
COUN 6968	Research in Counseling	3
COUN 6972	Career Counseling	3
COUN 6973 & 6973	Group Counseling Theory and Practice and Group Counseling Theory and Practice	4
COUN 6976	Social and Cultural Issues in Counseling	3

### Student Affairs and College Counseling Program Curriculum

1. Internship placement involves a minimum of 600 clock hours completed over two semesters. COUN 7004 Practicum in Student Affairs and College Counseling is to be completed in the fall semester immediately prior to beginning internship. Students are to apply for their field placement (note: application forms are in the central office and should be turned in to the internship coordinator) for the fall or summer semesters no later than the fourth week of the spring semester. Students who fail to turn in their field placement application form by the deadline will not be allowed to complete their field placement during the specified semester. Refer to *Fieldwork Handbook* for additional information.
2. Not all courses are offered every semester. It is the student's responsibility to carefully plan his/her program of study in order to meet all prerequisite course and graduation requirements.

COURSE	TITLE	S.H.
<b>Required Courses</b>		
COUN 6900	Counseling Methods and Practice	3
COUN 6930	College Counseling and Student Mental Health	3
COUN 6962	Counseling Theory	3
COUN 6968	Research in Counseling	3
COUN 6972	Career Counseling	3
COUN 6973 & 6973L	Group Counseling Theory and Practice and Group Counseling Laboratory	3
COUN 6976	Social and Cultural Issues in Counseling	3
COUN 7021	Legal and Ethical Issues in Student Affairs <sup>2</sup>	3
COUN 7023	Life Span and College Student Development	3
COUN 7026	Orientation and Functions of Student Affairs (take within the first 3 semesters)	3
COUN 7044	Leadership and Administration in Student Affairs	3

COUN 7046	Assessment in Student Affairs Practice	3
<b>Ohio Licensure Option</b> <sup>2</sup>		
COUN 5898	Orientation and Ethical Issues in Community Counseling	
COUN 6980	Diagnosis of Mental Disorders	
COUN 7031	Clinical Psychopathology and Treatment	
COUN 7034	Advanced Evaluation of Mental and Emotional Status	
COUN 7041	Case Conceptualization, Treatment Planning, and Clinical Supervision	
COUN 7001	Counseling Practicum 1 (permit required)	
<b>Practicum/Internship</b>		
COUN 7004	Practicum in Student Affairs and College Counseling (permit required) <sup>1</sup>	3
COUN 7005	Internship in Student Affairs and College Counseling (permit required) <sup>1</sup>	6
COUN 7005	Internship in Student Affairs and College Counseling <sup>1</sup>	6
<b>Total Semester Hours</b>		<b>51</b>

<sup>1</sup> COUN 7004 Practicum in Student Affairs and College Counseling & COUN 7005 Internship in Student Affairs and College Counseling will have licensure and non-licensure track internship settings

<sup>2</sup> Ohio Licensure Option will include an additional 18 semester hours of listed coursework. COUN 7021 will not be required for Non-Licensure students.

## Comprehensive examination prerequisites

COURSE	TITLE	S.H.
COUN 7026	Orientation and Functions of Student Affairs	3
COUN 7023	Life Span and College Student Development	3
COUN 6900	Counseling Methods and Practice	3
COUN 6962	Counseling Theory	3
COUN 7046	Assessment in Student Affairs Practice	3
COUN 6968	Research in Counseling	3
COUN 6972	Career Counseling	3
COUN 6973 & 6973L	Group Counseling Theory and Practice and Group Counseling Laboratory	3
COUN 6976	Social and Cultural Issues in Counseling	3

## Learning Outcomes

- Students will demonstrate an understanding of the curriculum content of CACREP's eight core courses
- Students will demonstrate the ability to use foundational counseling techniques/ micro-skills
- Students will demonstrate knowledge of, and the ability to apply ethical standards and engage in ethical counseling and professional practices
- Students will demonstrate knowledge of, and skills related to counseling diverse populations
- Demonstrate a professional identity, as well as professionalism, and fitness to practice as a professional counselor
- Students will demonstrate knowledge and skills specific to their program areas (i.e., Clinical Mental Health, School, Student Affairs)

## Graduate Faculty

### COUN 5821 Seminar in Guidance and Counseling 1-3 s.h.

Study of selected topics chosen by staff, e.g. career guidance, counseling process, and other contemporary issues in school personnel work.

**Prereq.:** Upper-division standing.

### COUN 5822 Seminar in Guidance and Counseling 1-3 s.h.

Study of selected topics chosen by staff, e.g. career guidance, counseling process, and other contemporary issues in school personnel work.

**Prereq.:** Upper-division standing.

### COUN 5823 Career Education and Career Guidance 2 s.h.

Study of public school career education and career guidance programs; the career education continuum, legislation relating to vocational programs, historical development, and principles of vocational education and vocational guidance. Also a survey of economic services: distributive education, human resources, programs, and placement.

**Prereq.:** Upper-division standing.

### COUN 5825 Group Processes in the School 2 s.h.

An introduction to group activities applicable to the needs of students in the school setting. Includes the study of group processes and group dynamics for social and personal problem solving as well as in the general area of individual and group behavior. Also a study of programs that provide for counselor-teacher cooperation in the development of groups in the classroom.

**Prereq.:** Upper-division standing.

### COUN 5879 Talented Students and Their Families 3 s.h.

A study of consulting and referral practices related to the developmental, social and personal difficulties often experienced by gifted/talented students and their families. Includes a field study component.

**Prereq.:** Upper-division standing.

### COUN 5888 Introduction to Health and Wellness Counseling 3 s.h.

Provides an introduction to basic counseling principles with special focus on those factors encountered in the provision of health and wellness-related services.

**Prereq.:** Upper-division standing.

### COUN 5895 Counseling Workshop 1-3 s.h.

Selected topics related to prevention and intervention approaches in school and community settings. Designed primarily as continuing professional education, this course is not included in counseling degree programs.

**Prereq.:** Upper-division standing.

### COUN 5898 Orientation and Ethical Issues in Community Counseling 3 s.h.

This course provides students with an introduction to the field of professional counseling and the foundations of community counseling. The course addresses the following topics: history, philosophy, cultural dynamics, advocacy, consultation, technology applications, and trends in professional and community counseling. The counseling profession's ethical standards are also addressed with an emphasis on the ACA code of ethics and counselor ethical decision making processes. Requirements differ for undergraduate and graduate students.

### COUN 5965 Counseling Workshop 1-5 s.h.

A workshop designed to examine contemporary topics in the field.

### COUN 5967 Guidance Counseling Workshop 1-3 s.h.

A workshop designed to examine contemporary topics in the field.

### COUN 6900 Counseling Methods and Practice 3 s.h.

Methods and practices of professional counseling relative to relationship, goals, process, and documentation. Relevant ethical guidelines are stressed. Includes experiential skill training. For counseling majors or by permission of Department of Counseling.

**Prereq. or concurrently:** COUN 6962.

### COUN 6902 Theory and Foundation of Addictions Counseling 3 s.h.

This course provides a comprehensive overview of chemical dependency and process addictions. There will be an emphasis on all aspects of addiction, including etiology, classification, physiological effects of substances, theory, assessment, interventions, and recovery models.

### COUN 6903 Addictions Counseling: Treatment and Intervention 3 s.h.

Knowledge, skills, and practice related to chemical dependency and process addictions. There will be an emphasis on assessment, models for treatment, and skills necessary to work in addiction/prevention programs in diverse settings.

**COUN 6904 Crisis Counseling 3 s.h.**

An overview of the professional concerns and issues school psychologists face working in public school systems. Orientation and preparation for the supervised internship experience will be discussed; future responsibilities as a professional and staff consultant. Legal and ethical issues pertaining to the role of a school psychologist will be reviewed.

**COUN 6905 Cultural/Ethnic Issues Relating to Youth and Families 3 s.h.**

Introduces pertinent theoretical cultural issues which relate to mental health professionals as they work with diversified populations. In particular, therapeutic skill enhancement of professionals will be advanced, since all counseling may be seen as cross-cultural. Group work and experiential exercises will provide an avenue for the professional and personal cultural growth of each participant. The goal is to also enhance participant's level of cultural sensitivity.

**COUN 6910 Human Development and Family Systems Counseling 3 s.h.**

The purpose of this course is to provide students with the content knowledge of human development and systems theory in order to become effective in helping individuals and families change. Major theoretical approaches to life span development and family counseling will be addressed.

**COUN 6911 International Area Study: Project Learning Around the World 3 s.h.**

This course is designed to enhance mental health or teacher's professional and personal level of sensitivity and competence via introducing them to innovative and traditional forms of intervention or healing in community and school settings in a developing country. Students will participate in philanthropic activities by helping to gather and deliver educational supplies via Project Learning Around the World ([www.platw.org](http://www.platw.org)).

**COUN 6912 Multilevel Tier Interventions Across General Education and Special Education Programming 3 s.h.**

Direct experiences in planned multilevel interventions across the three tiers of services within educational school systems for regular education and children with disabilities. Participation in RTI team meetings, curriculum academic and applied and functional behavioral analysis, progress monitoring, goal attainment scaling and determining effectiveness of intervention plans will be introduced.

**COUN 6930 College Counseling and Student Mental Health 3 s.h.**

This course provides students with an overview of the field of college counseling. The course addresses the following topics: history, philosophy, theories, cultural dynamic, technology applications, assessment and evaluation responsibilities, legal and ethical issues, and current trends in college counseling settings. The college counselor's role, function, and professional identity as a student advocate, program coordinator, individual/group counselor, and prevention specialist is addressed.

**COUN 6961 Orientation and Ethical Issues in School Counseling 3 s.h.**

This course provides students with an introduction to the field of professional counseling, and the foundations of school counseling. The course addresses the following topics: history, philosophy, cultural dynamics, advocacy, consultation, technology applications, classroom management issues, and trends in professional and school counseling. The counseling profession's ethical standards are also addressed with an emphasis on the American Counseling Association (ACA) and American School Counselor Association (ASCA) code of ethics, and counselor ethical decision-making processes.

**COUN 6962 Counseling Theory 3 s.h.**

Basic principles of counseling in an educational context. Development of procedural bases for counseling and educationally oriented counseling theory. Ethics and limitations involved in counseling practices.

**COUN 6963 Occupational and Educational Information in Guidance 2 s.h.**

Principles of career development and use of educational and occupational information resources in the guidance program. Lecture and discussion are used to explore occupational structure of the United States, sources of educational and occupational information including community resources, and the collecting, classifying, filing, and organization of educational and occupational information for use in the guidance program.

**COUN 6964 Appraisal Techniques in Counseling 3 s.h.**

Overview of the administration, scoring, and interpretation of standardized tests and measures used in counseling practice with specific focus and supervised practice in the administration and interpretation of standardized ability, interest, intelligence, and aptitude tests.

**COUN 6965 Applied Testing in Career Counseling 2 s.h.**

Administration, scoring, and interpretation of selected assessment tools and their application to career counseling.

**Prereq.:** COUN 6964.

**COUN 6968 Research in Counseling 3 s.h.**

The study and application of quantitative and qualitative research in counseling with statistical application component.

**COUN 6969 Administration of Personnel and Guidance Services 2 s.h.**

A comprehensive study of the dynamic qualities inherent in planning, management, functioning, and structuring of personnel and guidance services in public schools.

**COUN 6970 Counseling and Social Services in the Schools 2 s.h.**

Examines the scope and comprehensive developmental programs for counseling and social services in the schools with consideration of need assessment and development of such programs.

**COUN 6971 Human Relations for the Classroom 2 s.h.**

The course focuses on skill development in human relations. These skills are studied and integrated with cognate skill development in the classroom, classroom planning and organization conflict resolution, and coping with behavior problems and motivation. Application is made to the classroom environment.

**COUN 6972 Career Counseling 3 s.h.**

Theories of vocational choice, vocational success and satisfaction, decision making, and vocational testing. Career counseling as related to the economic and social context.

**COUN 6973 Group Counseling Theory and Practice 2 s.h.**

Theories pertaining to group dynamics, process, interaction, consultation, and counselor intervention. For counseling majors or by permission of Department of Counseling.

**Prereq. or concurrently:** COUN 6962.

**COUN 6973L Group Counseling Laboratory 1 s.h.**

Supervised experience in the use of interventions appropriate to stages of group development. Emphasis will be placed on promoting self-awareness, interpersonal skills, and group skills and techniques. Laboratory is taken concurrently with COUN 6973.

**COUN 6974 Case Studies in School Guidance and Field Experience in Community Social Agencies 2-4 s.h.**

Methods of collecting data, synthesis, and interpretation of data about a person and relationship to environment. Real and assumed situations of pupils over an extended period of time are presented for study and analysis. The course includes practical field experience with various community social agencies to acquaint the student with agency services and social casework methods. Particular emphasis is placed on the disadvantaged and exceptional child.

**COUN 6975 Counselor Consultation and Prevention 3 s.h.**

This course is a study of the theoretical models of consultation and prevention. Techniques for implementation of consultation and prevention in schools, agencies, and higher education settings will be presented.

**COUN 6976 Social and Cultural Issues in Counseling 3 s.h.**

Counseling theory and techniques related to social and economic change, ethnic groups, subculture, issues of sexuality and gender, urban and rural societies, cultural mores, the use of leisure time, and differing life patterns.

**COUN 6977 College Admission Counseling 3 s.h.**

This course provides practical information on advising student and parents about the college admission process. The course is designed to promote career advisement knowledge and skills related to: consultation with parents, drop out prevention, student motivation, academic/career preparation, assessment, application process, financial aid, and interventions to enhance student and parents decisions regarding college admission process.

**COUN 6980 Diagnosis of Mental Disorders 3 s.h.**

Overview of Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV-TR) format, with emphasis placed on the development of diagnostic skills for the major mental and emotional disorders commonly encountered in social service, educational, and community counseling agencies.

**COUN 6982 Educational Leadership in Primary and Intervention Strategies 2 s.h.**

This course will identify mental health issues that impact individuals, families, and the educational system. Prevention and intervention strategies will be explored, as well as issues and procedures of referral.

**COUN 6990 Independent Study 1-3 s.h.**

Individual investigation of advanced topics under guidance of selected staff. Permission of instructor required. Special approval required.

**COUN 6991 Family Systems 3 s.h.**

Systems theory as applied to family functioning. Major theoretical approaches to family counseling, including ethics and techniques, will be addressed.

**COUN 7001 Counseling Practicum 1 3 s.h.**

Supervised individual counseling practice with volunteer clients. Focus upon process, clarification, and resolution of counselee goals and counselor self-awareness/evaluation. Students are required to attend a scheduled orientation in the Community Counseling Clinic prior to the first class. Special approval required.

**Prereq.:** COUN 5898 or COUN 6961, COUN 6900, COUN 6962, COUN 6973 (can be taken concurrently), COUN 6980 (required for clinical counseling students only).

**COUN 7002 Clinical Mental Health Counseling Practicum 2 3 s.h.**

Supervised individual and group counseling practices in settings appropriate to student's programs. Requires field placement of 150 hours. Special approval required.

**Prereq.:** COUN 7001, no PR grades, successful completion of counseling program comprehensive exam, and permission of program area internship coordinator.

**COUN 7003 Counseling Children and Adolescents 3 s.h.**

Various theories and respective techniques for counseling and psychotherapy with children and adolescents. Research concerning the efficacy of such approaches will also be studied. Special approval required.

**COUN 7004 Practicum in Student Affairs and College Counseling 3 s.h.**

This course will provide an orientation to the student services division, as well as offering students the opportunity to gain experience in a higher education setting. The program component will include individual and group supervision, as well as supervised field experience. Special approval required.

**COUN 7005 Internship in Student Affairs and College Counseling 6 s.h.**

This course will provide a weekly supervision and 600 hours of supervised field experience for student affairs and college counseling students. The internship supervision is designed to promote the integration of theory and practitioner experiences for students in a higher education setting and to help students prepare for the transition to a professional student affairs position following completion of the degree. Special Approval required.

**Prereq.:** COUN 6900, COUN 6962, COUN 7004, and COUN 7026.

**COUN 7006 Guidance in the Classroom 2 s.h.**

Studies various factors important to a facilitative climate in the classroom and activities through which elementary counselors and teachers can provide these conditions. Considered as classroom management and discipline techniques based upon learning theory, implementation of democratic group structure for elementary school classrooms, and organized activities designed to promote the development of self-understanding and understanding of others in the child's world. The course requires extensive reading and review of published materials designed for classroom guidance in addition to observation of classrooms and role playing experiences.

**COUN 7007 School Counseling Practicum 2 3 s.h.**

Supervised individual and group counseling practices in school counseling. Requires field placement of 150 hours. Special approval required.

**Prereq.:** COUN 7001, no PR grades, successful completion of department comprehensive exam, and permission of instructor.

**COUN 7008 Assessment for Educational Decision Making 2 s.h.**

Assessment procedures used for making leadership decisions in the educational setting. Emphasis on community assessment, identifying high-risk students, and the development of guidance and state testing programs.

**COUN 7009 School Counseling Internship 6 s.h.**

Supervised internship in approved school counseling programs. May be repeated. For counseling majors. Special Approval required.

**Prereq.:** COUN 7002.

**COUN 7010 Clinical Mental Health Counseling Internship 6 s.h.**

Supervised internship in approved community agencies offering counseling and other mental health services. May be repeated. For counseling majors. Special Approval required.

**Prereq.:** COUN 7002.

**COUN 7013 Topical Seminar in Counseling 1-3 s.h.**

The course is for practicing counselors and counselor trainees and will include a survey of literature in counseling, contemporary issues, individual and small group study of special problems chosen by staff, for example, research in counseling, counselor values, and the counseling process; student values and drug abuse; team approach to counseling services; etc. May be repeated to a maximum of 10 semester hours.

**COUN 7014 Topical Seminar in Counseling 1-3 s.h.**

The course is for practicing counselors and counselor trainees and will include a survey of literature in counseling, contemporary issues, individual and small group study of special problems chosen by staff, for example, research in counseling, counselor values, and the counseling process; student values and drug abuse; team approach to counseling services; etc. May be repeated to a maximum of 10 semester hours.

**COUN 7015 Topical Seminar in Counseling 1-3 s.h.**

The course is for practicing counselors and counselor trainees and will include a survey of literature in counseling, contemporary issues, individual and small group study of special problems chosen by staff, for example, research in counseling, counselor values, and the counseling process; student values and drug abuse; team approach to counseling services; etc. May be repeated to a maximum of 10 semester hours.

**COUN 7017 Group Procedures in Counseling 2 s.h.**

A laboratory course intended as an experimental introduction to dynamics of groups. Students will participate in community experiences involving the entire class as well as small group activities involving subdivisions of the class. Readings on group processes and involvement in relevant projects and reports are also included in the course.

**Prereq.:** Permission of instructor.

**COUN 7018 Diagnosis and Treatment of Children and Adolescents 3 s.h.**

Overview of Diagnostic and Statistical Manual of Mental Disorders, fifth edition, text revision (DSM-V-TR) with an emphasis placed on the development of diagnostics skills for the major mental disorders commonly encountered in social service, educational, and community counseling agencies. The course will additionally focus on the development of diagnostic skills and treatment strategies for working with children and adolescents.

**COUN 7019 School Counseling Program Development 3 s.h.**

This course provides students with a comprehensive framework for planning, designing, implementing, evaluating, and enhancing content-based and comprehensive developmental counseling programs. The course is designed to promote knowledge and skills related to: prevention and crisis intervention strategies; use of a student information system to collect, analyze, and evaluate data in order to improve student outcomes; integration of the school counseling program into the total school curriculum to assist preK-12 students.

**COUN 7021 Legal and Ethical Issues in Student Affairs 3 s.h.**

This course is designed to provide graduate students with an introduction to the legal and ethical issues which affect higher education and student affairs practice. The primary goal of this course is to provide an exploration and understanding of legal issues pertaining to the various constituents of colleges and universities (students, faculty, and administrators).

**COUN 7023 Life Span and College Student Development 3 s.h.**

The purpose of this course is to provide an introduction to the field of college student and human development across the life span. Students will be exposed to a range of human development theories and student characteristics that offer insight into the processes of student learning, growth, and development. Special focus will be directed toward understanding patterns of growth and change during the college years for different student subgroups and the implications of these changes for the practices of student affairs and college counseling.

**COUN 7026 Orientation and Functions of Student Affairs 3 s.h.**

The primary purpose of this course is to provide students with a comprehensive introduction to the functional areas of student affairs. The application of a counseling-based knowledge and skills for student affairs practitioners will be emphasized.

**COUN 7028 Advanced Counseling Theory and Treatment Seminar 3 s.h.**

Research and discussion on selected counseling theories (e.g., Adler, Rogers, Ellis, Carkhuff, Berne) chosen by staff. May be repeated.

**COUN 7029 Professional Issues in Student Affairs 3 s.h.**

The purpose of this course is to expose graduate students to contemporary issues shaping student affairs practice. Topics will vary but will focus on the development of knowledge and skills in emerging areas relevant to professionals in student affairs (e.g., enrollment management, retention, assessment, finance and budget, grant writing).

**COUN 7030 Human Relations Training for School Personnel 2 s.h.**

Designed to improve the interpersonal relationships of administrators, counselors, teachers, and other professional staff. Objectives include examination of personal communication styles, the effect of the individual on task groups, and increasing leadership potential. For counseling majors or permission of Department of Counseling.

**COUN 7031 Clinical Psychopathology and Treatment 3 s.h.**

Counseling theories of abnormal behavior and mental disorders throughout the total life cycle. Specific personality theories and examinations of empirically-derived treatments will be included.

**Prereq.:** COUN 6962.

**COUN 7032 Clinical Intellectual Testing 3 s.h.**

Supervised practice in the administration and interpretation of standardized intelligence and aptitude tests.

**Prereq.:** COUN 6964.

**COUN 7033 Personality Objective/Projective Assessment 3 s.h.**

Supervised practice in the administration and interpretation of standardized objective and projective measures of personality.

**Prereq.:** COUN 6964.

**COUN 7034 Advanced Evaluation of Mental and Emotional Status 3 s.h.**

This course provides an advanced overview of the administration and interpretation of intelligence and personality tests. The course is designed to assist the student in becoming aware of testing procedures, testing practices and professional issues concerning the topic of assessment and to provide the student with practical assessment skills applicable to counseling.

**Prereq.:** COUN 6964.

**COUN 7036 Consultation and Educational Approaches to Prevention 2 s.h.**

The study of consultation theory and models. Educational approaches to prevention of substance abuse, child abuse, family and marriage problems, etc. will be included.

**COUN 7037 Counseling and Psychopharmacological Treatments of Mental and Emotional Disorders 3 s.h.**

The study of pharmacological, behavioral, cognitive, and emotive strategies and techniques associated with the treatment of mental and emotional disorders commonly encountered in mental health settings.

**Prereq.:** COUN 6980 or COUN 7013A.

**COUN 7038 Counseling with Couples 3 s.h.**

Application of family systems theory to intervention and prevention strategies with couples.

**COUN 7039 Administration and Supervision of Mental Health Services 2 s.h.**

A comprehensive study of management, planning, function, personnel structuring, supervision, and counseling services in a mental health setting.

**COUN 7040 Supervision Practicum 3 s.h.**

Theory and practice of counselor supervision. Includes practicum assignment in counselor education. For counseling majors only and by permission of Department of Counseling.

**Prereq.:** COUN 7010.

**COUN 7041 Case Conceptualization, Treatment Planning, and Clinical Supervision 3 s.h.**

The purpose of this course is to provide students with the advanced case conceptualization, treatment/planning intervention (24 hours) and theory/practice of supervision (24 hours). Includes 12 contact hours of supervision of practicum students at the YSU Counseling Program Community Counseling Clinic.

**Prereq. or concurrent:** COUN 7010.

**COUN 7042 Administration and Organization in Higher Education 3 s.h.**

The purpose of this course is to expose graduate students to the complex study of administrative practices and organizational theory in the context of examining campus environments. By developing an informed knowledge base regarding the multiple perspectives of organizations and campus environments, students will be better prepared to lead change in student affairs settings.

**COUN 7044 Leadership and Administration in Student Affairs 3 s.h.**

This course provides students with an opportunity to read, reflect, and integrate theories, concepts, and practices related to leadership and administration. Students will be challenged to reflect on their core values and principles. Students will see leadership through a new paradigm, and formulate their own philosophy of leadership. Students will be challenged to employ visionary leadership in the planning and implementation stage of change.

**COUN 7046 Assessment in Student Affairs Practice 3 s.h.**

The purpose of this course is to promote the understanding of assessment and program evaluation in enhancing practice. The course will focus on how to utilize assessment to improve practice and to demonstrate the effectiveness of programs, as well as to provide opportunities to effectively assess various dimensions of the college experience. By learning the usefulness and appropriateness of various assessment methodologies, the emerging practitioner will learn to provide evidence for effective practice.

**COUN 7050 College Counseling Internship 3 s.h.**

Supervised experience in a college counseling clinic/center offering diagnosis and treatment of mental and emotional disorders. For counseling majors or by permission of program area internship coordinator.

**Prereq.:** COUN 7010.

**COUN 7060 Thesis Research 1-6 s.h.**

Design, proposal, completion, and reporting of scholarly research deemed acceptable by the department faculty. For counseling majors or by permission of Department of Counseling.

**Prereq.:** COUN 6964, COUN 6968, or permission of department chair.

**COUN 7509 Family Systems Within an Educational Context 3 s.h.**

The focus of the didactic and experiential course will be on identifying patterns of children's symptoms, repositioning of the therapist within the educational system context and learning various therapeutic techniques to use with families of children with disabilities or other mental health issues.

# Master of Science in Education— Educational Administration

## Program Director

Dr. Charles Vergon  
4103 Beeghly Hall  
(330) 941-1574  
cbvergon@ysu.edu

## Program Description

The Educational Administration program prepares reflective administrative practitioners who are capable of providing effective management and instructional leadership in public and nonpublic school settings (also see the Doctor of Education in Educational Leadership section.) Post-master's programs are also provided which lead to:

- Ohio administrative licensure as elementary principal for ages 3 through 12;
- middle school principal for ages 8 through 14;
- secondary principal for ages 10 through 21;
- administrative specialist in curriculum, instruction, and professional development; and
- superintendent.

In addition, the department offers programs for Pennsylvania administrative certification as principal for grades K–12 and the letter of eligibility for superintendent.

## Admission Requirements

In addition to the minimum College of Graduate Studies admission requirements, Education Administration applicants should submit the following:

- Qualification for a teaching certificate or license (Ohio provisional or equivalent) if enrolled in a program leading to additional certification, licensure, validation, or endorsement. Students without a teaching certificate or license may be admitted on an individual basis to graduate programs leading to certification or licensure in certain areas.
- A satisfactory score on the aptitude portion of the Graduate Record Examination or on the Miller Analogies Test if the student's undergraduate grade point average is below 3.0
- One reference letter from the applicant's principal, superintendent or other administrator to evaluate your professional knowledge, skills, professionalism and leadership potential
- Two professional recommendations
- Professional résumé
- A brief essay (500-750 words) addressing why you aspire to be a principal or building level leader and why you think you will be an effective one
- Personal interview upon departmental request

## Graduate Faculty

**Jane Beese**, Ed.D., Associate Professor  
Organizational leadership; economics of education; program evaluation

**Charles Jeffords**, Ed.D., Assistant Professor  
Administrative practices; school and community relations; school finance

**Patrick T. Spearman**, Ph.D., Associate Professor  
African American history, studies, education, and educational history; educational sociology; disparate discipline procedures among students in public schools

**Charles B. Vergon**, J.D., Professor  
Education law; policy development; educational change

A minimum of 30 semester hours is required for the degree. In addition to the following educational administration and foundations courses, students must successfully complete a comprehensive examination covering the educational administration courses listed under Special Notes.

## Master's Degree

### Introduction to School Leadership and Educational Organizations

This program introduces students to the realities of school leadership, providing them a broader vision and deeper understanding of educational policy and organizations and the role of the school leader in promoting effective instruction and continuous school improvement. It begins to transform their perspectives from that of a classroom teacher to one of an administrator. Other courses develop leadership knowledge and skills specific to building level operations, focusing on the role of principal in relation to staff and community, school safety and the administration of discipline, support programs and services for students with disabilities, and how legal and fiscal considerations shape and influence administrative decision making and the exercise of leadership.

Students must complete a minimum of 30 hours satisfying the following distributional requirements:

COURSE	TITLE	S.H.
<b>Foundations</b>		
FOUN 6904	Introduction to Educational Research	6
FOUN 6902	Sociological Bases of Education	
<b>Leadership Courses</b>		
EDAD 6915	Learning, Teaching, and Instructional Leadership	12
EDAD 6933	Educational Policy, Politics, and Change	
EDAD 6947	School Building Leadership: Models and Processes	
EDAD 7014	Systematic Use of Information for Continuous School Improvement	
<b>Administrative Specialty Courses</b>		
EDAD 6949	Legal and Ethical Issues in Public Administration	12
EDAD 6952	School Finance, Resource Planning, and Management	
EDAD 6954	Educational Marketing and Community Relationships	
EDAD 7018	School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies	
<b>Total Semester Hours</b>		<b>30</b>

## Special Notes

Before granting the degree, candidates must successfully complete a comprehensive examination covering leadership and administrative specialty courses.

This program provides no license in administrative areas. Upon completion of the M.S. in Education in Educational Administration degree or the equivalent thereof as evaluated by the Department, students have the opportunity to enroll in specific administrative licensure areas.<sup>1</sup>

All transfer students, including those seeking a master's degree and those who hold a master's degree, will be evaluated using the criteria listed previously. Students who have been evaluated through direct contact with the Ohio Department of Education should be aware that they must meet the criteria established by the Department of Educational Foundations,

Research, Technology, and Leadership at YSU before the M.S. in Education in Educational Administration will be granted.

- Completion of the minimum number of semester hours indicated for each program and any other Ohio or Pennsylvania Department of Education requirements must be achieved before recommendation for any license. Those seeking initial administrative licensure in the State of Ohio must also obtain a passing score on the state-prescribed administrative licensure exam for the license they seek.

## Post-master's Licensure Requirements

Candidates for Ohio administrative license must have completed the 30 semester hours for the M.S. in Education degree in Educational Administration as required by YSU or its equivalent as evaluated by the Department of Educational Foundations, Research, Technology, and Leadership.

### Principal License (OHIO) (6 semester hours)

Elementary Principal License Grades PK-6

Middle School License Grades 4-9

Secondary Principal License Grades 5-12

The licensure course work is entirely clinical in nature, consisting of two courses comprising 6 semester hours. The courses are designed to afford candidates the opportunity to apply the content knowledge from their course work and practice the skills necessary to effective leadership. Across the two courses, candidates observe and then carry out a range of administrative responsibilities including analyzing student performance, carrying out clinical supervision of teaching staff, writing a staff improvement plan, designing a HQ staff development program, creating a master schedule, participating in teacher hiring processes, administering student discipline, conducting school safety drills, and coordinating special education meetings and functions, among others. In addition, in the second clinical practice candidates design and implement an Integrated School Improvement Project addressing a real need in their school setting. Candidates and faculty participate in an interactive on-line clinical learning community spanning diverse and geographically dispersed clinical sites.

COURSE	TITLE	S.H.
EDAD 6975	Introduction to Administration Clinical Experience	3
EDAD 7022	Field Experience (Elementary 7022E; Middle 7022M; or Secondary 7022S)	3
<b>Total Semester Hours</b>		<b>6</b>

Candidates must hold or qualify for a valid teacher certificate/license at the same level as the administrative license being sought; and have two years of successful teaching under a professional teaching license at the same level as the administrative license being sought. In addition, candidates must have a passing score on the state-prescribed administrative licensure exam for the principalship.

### Administrative Specialist License

#### Administrative Specialist License in Curriculum, Instruction, and Professional Development

Master's degree in educational administration, plus 18 hours of course work from the following list, which must include EDAD 7040 Clinical Practice for the Administrative Specialist:

COURSE	TITLE	S.H.
TCED 6922	Principles of Instruction	3
TCED 6934	Assessment and Accountability	3
TCED 6936	Curriculum, Assessment, and Instruction to Improve Learning	3
SPED 6900	Issues, Trends & Foundations in Special Education	3

SPED 7077	Leadership in Special Education	3
EDAD 7014	Systematic Use of Information for Continuous School Improvement	3
EDAD 7018	School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies	3
EDAD 7040	Clinical Practice for the Administrative Specialist	3

Or a Master's degree in curriculum at YSU, plus coursework as follows:

COURSE	TITLE	S.H.
EDAD 6915	Learning, Teaching, and Instructional Leadership	3
EDAD 6947	School Building Leadership: Models and Processes	3
EDAD 6949	Legal and Ethical Issues in Public Administration	3
EDAD 6952	School Finance, Resource Planning, and Management	3
EDAD 6954	Educational Marketing and Community Relationships	3
EDAD 6955	Professional Development and Human Resources	3
EDAD 6975	Introduction to Administration Clinical Experience	3
EDAD 7014	Systematic Use of Information for Continuous School Improvement	3
EDAD 7018	School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies	3
EDAD 7040	Clinical Practice for the Administrative Specialist	3
<b>Total Semester Hours</b>		<b>30</b>

Individuals qualifying for licensure at the Elementary or Secondary level are also issued licensure at the Middle School level.

Candidates must qualify for/hold a valid professional teacher certificate/license and have two years of successful teaching under a professional teaching certificate/license. In addition, candidates must have completed the prescribed number of hours and have an official score report indicating a passing score on the state prescribed administrative licensure examination required for the license.

### Superintendent License (OHIO)

Candidates must hold an administrative certificate or license issued upon the recommendation of YSU or the equivalent thereof as evaluated by the Department of Educational Foundations, Research, Technology, and Leadership at YSU, complete the following course sequence, and meet any other Ohio State Department of Education requirements.

This model shifts the leadership focus from the micro (school site) to the macro (school systems) level and familiarizes prospective superintendents with systems knowledge and perspective on leadership in areas from educational governance to human resource administration to technology and facilities.

COURSE	TITLE	S.H.
EDAD 7024	Collective Bargaining and Systems Issues in Human Resources Administration	3
EDAD 7025	Educational Governance: Advanced Law and Policy Seminar	3
EDAD 7026	Technology and Facilities for Learning Organizations	3
EDAD 7035	The Superintendency and Evolving Ways of Looking at Leadership	3
EDAD 7050	Clinical Experience: Superintendency	3
<b>Total Semester Hours</b>		<b>15</b>

### PRINCIPAL CERTIFICATE K-12 (Pennsylvania)

Candidates must hold a Master's degree from an accredited program. The professional education program provides evidence that School Principal certification candidates demonstrate knowledge of and competence in working in the elementary and secondary public school settings, including completion of the 33 semester hours listed below, many of which are included



in the typical master's degree in educational administration. They must also provide an official score report indicating:

- a score of at least 143 on Praxis II Specialty Test #0411 in Educational Leadership: Administration and Supervision; or
- a 163 score on Praxis Specialty Test #6011 in School Leadership Licensure Assessment (SLLA); and
- satisfy any other Pennsylvania Department of Education Requirements, plus:

Completion of 33 s.h. below (to extent not already taken as part of a master's degree program):

COURSE	TITLE	S.H.
EDAD 6915	Learning, Teaching, and Instructional Leadership	3
EDAD 6931	Leadership in Educational Organizations: Theory to Best Practices	3
EDAD 6947	School Building Leadership: Models and Processes	3
EDAD 6949	Legal and Ethical Issues in Public Administration	3
EDAD 6952	School Finance, Resource Planning, and Management	3
EDAD 6954	Educational Marketing and Community Relationships	3
EDAD 6955	Professional Development and Human Resources	3
EDAD 7014	Systematic Use of Information for Continuous School Improvement	3
TCED 6936	Curriculum, Assessment, and Instruction to Improve Learning	3
SPED 7077	Leadership in Special Education	3
Select one clinical experience course as appropriate to the licensure level being sought:		
EDAD 7022	Field Experience (Elementary 7022E; Secondary 7022S)	3
<b>Total Semester Hours</b>		<b>33</b>

The professional education program provides evidence that each certification candidate demonstrates knowledge and competencies that foster professionalism and ethical practices in school/community settings including:

1. Professional organizations, professional literature, resources and advocacy groups.
2. Integrity and ethical behavior, professional conduct as stated in *Pennsylvania's Code of Professional Practice and Conduct for Educators*; and local, state, and federal laws and regulations.
3. Communicating effectively (orally and in writing) with students, colleagues, faculty, families, paraprofessionals, related service personnel, outside agencies and the community.
4. Recognizing the professional responsibilities of administrators' and teachers' roles as collaborators, team members, advocates, and service coordinators.

## Certification for the Pennsylvania Superintendent's Letter of Eligibility

Candidates must:

- hold a Master's degree from an accredited program;
- have six years of professional service in schools, three of which shall have been in supervisory or administrative positions;
- have an official score report indicating a score of at least 160 on the School Superintendent Assessment Exam #6021;
- all other State of Pennsylvania Department of Education requirements must be met;
- plus completion of the 57 semester hours listed below, many of which may already have been completed as part of the candidate's master's degree in educational administration and principalship certification programs.

COURSE	TITLE	S.H.
EDAD 6915	Learning, Teaching, and Instructional Leadership	3
EDAD 6947	School Building Leadership: Models and Processes	3
EDAD 6949	Legal and Ethical Issues in Public Administration	3
EDAD 6952	School Finance, Resource Planning, and Management	3
EDAD 6954	Educational Marketing and Community Relationships	3
EDAD 6955	Professional Development and Human Resources	3
EDAD 7014	Systematic Use of Information for Continuous School Improvement	3
EDAD 7024	Collective Bargaining and Systems Issues in Human Resources Administration	3
EDAD 7025	Educational Governance: Advanced Law and Policy Seminar	3
EDAD 7026	Technology and Facilities for Learning Organizations	3
EDAD 7035	The Superintendency and Evolving Ways of Looking at Leadership	3
EDAD 7050	Clinical Experience: Superintendency	3
FOUN 6901	Philosophical Analysis of Education	3
FOUN 6902	Sociological Bases of Education	3
FOUN 6904	Introduction to Educational Research	3
FOUN 6905	Educational Challenges in Historical Perspective	3
TCED 6936	Curriculum, Assessment, and Instruction to Improve Learning	3
TCED 6946	Supervision of Instruction	3
TCED 6951	Interpersonal Communications for Educators	3

**Total Semester Hours**

**57**

## Learning Outcomes

1. Candidates will be able to facilitate the development, articulation, implementation, and stewardship of a building level vision of learning that is supported by the school community.
2. Candidates will be able to promote a positive school building culture, provide an effective instructional program, apply best practice to student learning, and design comprehensive professional growth plans for building staff.
3. Candidates will be able to manage school building organization, operations, and resources in a way that promotes a safe, efficient, and effective learning environment.
4. Candidates will be able to collaborate with families and other community members, respond to diverse community interests and needs, and mobilize community resources.
5. Candidates will be able to act with integrity, fairly, and in an ethical manner in carrying out building level functions.
6. Candidates will be able to influence the larger political, social, economic, legal, and cultural context.
7. Candidates will be able to synthesize and apply the above outcomes through substantial, sustained, standards-based work in real school building settings in their choice of post-master's licensure programs—Ohio Administrative Specialist Licensure, Ohio Principal Licensure and Pennsylvania Principal Certification.

## Graduate Courses

**EDAD 6915 Learning, Teaching, and Instructional Leadership 3 s.h.**

Leadership behaviors and expectations intended to build teacher commitment, increase teaching competence, and improve the learning climate of students. The importance of and role that adult development and learning play in teacher leadership regarding curriculum and instruction decisions are stressed.

**EDAD 6931 Leadership in Educational Organizations: Theory to Best Practices 3 s.h.**

Significant theories, research, and professional practices in the leadership of schools and school systems. Detailed analysis of primary sources and application of sources to reflection on issues and problems of administrative practice.

**EDAD 6933 Educational Policy, Politics, and Change 3 s.h.**

Explores who governs America's schools. Provides an introduction to schools as political systems and the values that shape educational politics and policy making. Examines the role of school leaders as agents of change and alternative change models and strategies.

**EDAD 6947 School Building Leadership: Models and Processes 3 s.h.**

Theories of leadership and schooling that provide future principals with guides for action and behavior will be presented. Theories that shape personal decision-making processes that build schools as learning communities will be presented.

**EDAD 6949 Legal and Ethical Issues in Public Administration 3 s.h.**

Defines law and professional ethics and discusses the role of each in public decision making. Explores the status and application of the law in various areas of school operations through the reading of cases, statutes, and constitutional provisions.

**EDAD 6952 School Finance, Resource Planning, and Management 3 s.h.**

An analysis of school funding on a state and local level. School budgeting, site-based management, and school business practice are major topics. An action research project is part of the course requirement.

**EDAD 6954 Educational Marketing and Community Relationships 3 s.h.**

Stresses effective communication that supports the marketing of school purposes and programs. Leadership skills that build community support and recognize the value of message delivery to targeted audiences in the community will be related to the marketing of schools.

**EDAD 6955 Professional Development and Human Resources 3 s.h.**

In-depth examination of policies and practices designed to reconcile the interests of schools and the people who make them up. Topics include professional and staff development, equal employment, position description, recruitment, selection, performance appraisal, removal, compensation, and emerging issues.

**EDAD 6975 Introduction to Administration Clinical Experience 3 s.h.**

Designed to expand candidate's knowledge of the nature, characteristics and demands associated with school administration and provide opportunity to develop skills and dispositions needed for administrative responsibilities. Includes focused field experiences embedded in various courses throughout the program. Requires candidates to perform a particular administrative function in school and community settings.

**Prereq.:** Completion of five of the following courses EDAD 6915, EDAD 6931, EDAD 6933, EDAD 6947, EDAD 6949, EDAD 6954, and EDAD 6955.

**EDAD 6982 Independent Study/Action Research 1-3 s.h.**

Individual investigation of advanced topics under the guidance of selected departmental faculty. May be repeated.

**EDAD 6990 Seminar in Educational Administration 1-3 s.h.**

A seminar designed for the development of particular skills and/or perspectives on a topic related to educational administration.

**EDAD 6993 Special Topics in Educational Administration 1-4 s.h.**

**Prereq.:** Admission to master's degree program in educational administration.

**EDAD 6995 Workshop in Educational Administration 1-3 s.h.**

A workshop designed for the development of particular skills and/or perspectives on a topic related to educational administration.

**EDAD 7014 Systematic Use of Information for Continuous School Improvement 3 s.h.**

Information systems concepts: analysis, design, implementation, and evaluation applied to individual, school, and program evaluation and improvement. Experience with information retrieval and synthesis from local and state educational databases. An action research project is a major course requirement.

**EDAD 7018 School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies 3 s.h.**

Examines school discipline and youth problems that threaten student health, welfare, and safety and research-proven school programs for addressing such problems. Emphasizes the role of school leaders in developing and implementing comprehensive policies and student support programs.

**EDAD 7022 Field Experience 3 s.h.**

Completed in a school covered by teaching certificate or license. Second administrative clinical experience designed to highlight tasks.

**EDAD 7024 Collective Bargaining and Systems Issues in Human Resources Administration 3 s.h.**

Human resources issues from the central office perspective. Statutory, regulatory, and political contexts for public sector collective bargaining. Conceptual and experiential treatment of traditional and interest-based bargaining. Approaches to human resources policy development. Grievances and management of written agreements.

**EDAD 7025 Educational Governance: Advanced Law and Policy Seminar 3 s.h.**

Explores emergent legal developments affecting P-12 education systems and the role and limits of the law in promoting educational emergent reform. Reviews social science literature on governance issues and factors that affect the nature, degree, and rate of organizational compliance.

**EDAD 7026 Technology and Facilities for Learning Organizations 3 s.h.**

Due to increasing demands upon the educational facilities by the instructional use of technology and the need to prepare students for the world of work, facility management and integration of technology into the facility are examined.

**EDAD 7035 The Superintendency and Evolving Ways of Looking at Leadership 3 s.h.**

This course examines the role of superintendent in the administration of schools. Students will study leadership in complex social organizations so that they can apply current theory and research to their roles in complex, chaotic, educational environments.

**EDAD 7040 Clinical Practice for the Administrative Specialist 3 s.h.**

Candidates for administrative specialist licenses in areas of curriculum, instruction, and professional development or pupil services administration develop an individualized clinical plan and complete a set of tasks and an integrated project aligned with professional standards under the guidance of an appropriately licensed cooperating administrator.

**Prereq.:** Candidates must have completed all or be currently enrolled in remaining courses that compose the requirement of respective specialist license.

**EDAD 7050 Clinical Experience: Superintendency 3 s.h.**

Candidates for the superintendency license are required to complete four tasks from the master syllabus at the district-wide level, supervised by a school superintendent. Major components are the complete analysis of the financial structure of the candidate's school district and a system-level integrated project.

**Prereq.:** Completion of three of the following four courses: EDAD 7024, EDAD 7025, EDAD 7026, EDAD 7035, and two years experience in a building-level administrative capacity or equivalent.

**EDAD 8111 Advanced Research Design and Statistics 3 s.h.**

An in-depth treatment of the major correlational, experimental, and quasi-experimental research designs and associated statistical analyses, including the design and analysis of surveys and factor analytic techniques. Experience in data analysis using SPSS or other statistical packages. 3 s.h. Cross listed with FOUN 8111.

**Prereq.:** EDAD/FOUN 8104.

**EDAD 8113 Theories of Inquiry 3 s.h.**

Perspectives for critical analysis, investigation of ways of knowing, and an examination of criteria that have been used successfully for negotiating status and justifying claims within contested domains of inquiry. 3 s.h.

**Prereq.:** FOUN 8104 and EDAD 8111/FOUN 8111.

**Cross listed with** FOUN 8113.

**EDAD 8122 Leadership in Education 3 s.h.**

In this course students will critically analyze contemporary ways of thinking about leadership. As students examine their present paradigm of leadership, they will also analyze a reconfiguration of leadership that reflects developments in the new sciences and other fields.

**Prereq.:** Admission to the doctoral program.

**EDAD 8125 Educational Politics and Policymaking in the United States 3 s.h.**

Reviews professional literature on politics and policy making at the local, state, and federal level, including the values, institutional actors, processes, and interest groups that shape educational policy. Explores means of identifying problems, analyzing policy alternatives, and measuring policy outcomes.

**Prereq.:** Admission to the doctoral program.

**EDAD 8130 Learning Processes and the Instructional Leader 3 s.h.**

A study of current theories and research in the areas of cognition and learning, development and motivation that underlay approaches to teaching in any context.

**EDAD 8140 Seminar in Administrative Theory 3 s.h.**

Extension of the administrator's abilities to analyze professional problems, develop leadership strategies, and exercise sound decision making. Nontraditional (nonfunctionalist) theories are stressed, with emphasis on deconstructing and purposefully framing educational issues. Case studies strengthen the application of the theories.

**Prereq.:** Admission to the doctoral program.

**EDAD 8155 Seminar in Current Educational Issues 3 s.h.**

Informing educational leaders about contextual issues of schools is necessary in order to understand and recognize that school reform, both at the time of its proposal and during the developmental stages of its implementation, is intended to ameliorate educational problems.

**Prereq.:** Admission to the doctoral program.

**EDAD 8180 Special Topics in Educational Leadership 1-3 s.h.**

Selected topics for a focused study on problems, issues, or concerns that relate to educational leadership.

**Prereq.:** Admission to the doctoral program.

**EDAD 8185 Seminar in Educational Research/Dissertation Proposal 3 s.h.**

The purpose of this course is to gain knowledge and skills in developing a research question and an appropriate methodology so that chapters I and II of a doctoral dissertation can be completed.

**Prereq.:** FOUN 8104, FOUN 8112, and FOUN 8111.

**EDAD 8190 Dissertation Study 1-9 s.h.**

Covers the design, proposal, conduct, reporting, and defense of scholarly research that addresses a meaningful topic derived from and contributing significantly to the literature of the field.

**Prereq.:** Completion of doctoral comprehensive examination.

**EDAD 8931 Leadership in Educational Organizations 3 s.h.**

Significant theories, research, and professional practices in the leadership of schools and school systems. Detailed analysis of primary sources and application of sources to reflection on issues and problems of administrative practice.D. program in Educational Leadership. Ed.D. students who have not taken EDAD 6931 are required to complete EDAD 8931 and include a supplemental, substantive course assignment that relates to their intended area of specialization.

**Prereq.:** Admission to the Ed.

**EDAD 8949 Legal and Ethical Issues in Public Administration 3 s.h.**

Defines law and professional ethics and discusses the role of each in public decision making. Explores the status and application of the law in various areas of school operations through the reading of cases, statutes, and constitutional provisions.D. program in Educational Leadership. Ed.D. students who have not taken EDAD 6949 are required to complete EDAD 8949 and include a supplemental, substantive course assignment involving original research using primary source materials in education law and policy.

**Prereq.:** Admission to the Ed.

## Master of Science in Education – Special Education

### Introduction

The master's degree program in special education provides advanced cognitive and educational skills for those who are presently working or expect to work as clinical/developmental personnel serving individuals with exceptionalities or as supervisors of special education programs. This degree program prepares candidates for work as an intervention specialist. Candidates will be introduced to advanced and in-depth teaching strategies which will provide understanding and provide the ability to implement tools as an intervention specialist working with learners with significant disabilities and exceptionalities.

### Welcome

Our program is designed to prepare graduates with the knowledge, skills, and dispositions to best serve in schools and agencies in the area. Our accredited Special Education program seeks to meet the educational and service needs of Northeast Ohio and Western Pennsylvania. Our program is exemplified by the quality and diversity of classroom instruction, field experiences, program options, student, faculty, and graduates in the community. We have a long history of producing graduates who have served the area as Special Education teachers, Intervention Specialists, and Special Education Professionals. We have a strong connection with our alumni, program supervisors, schools and agencies, and others who support students with exceptional learning needs in the Youngstown area.

Undergraduate and graduate candidates will find a unique educational experience that prepares them for employment and/or advanced study in Special Education. For more information, review our website and contact Special Education faculty with any questions.

For more information contact the Department Office at 330-941-3251 or visit the Department of Teacher Education (<http://catalog.yzu.edu/undergraduate/colleges-programs/college-education/departement-teacher-education>).

### Program Director

For specific questions about the Master of Science in Education - Special Education program, please contact the program chair:

Marcia Matanin, PhD  
2321 Beeghly College of Education  
(330) 941-3652  
[mjmatanin@ysu.edu](mailto:mjmatanin@ysu.edu) ([jvaschak01@ysu.edu](mailto:jvaschak01@ysu.edu))

### Mission

The Special Education Program supports the mission of both Youngstown State University and the Beeghly College of Education through our work to:

- Prepare outstanding potential special education teachers by providing a rigorous educational program that is contemporary in its approaches, up to the minute in its content base knowledge, based upon didactic learning and practical experience and requiring demonstrated competency prior to graduation;

- Foster and require community and school based practicum experiences that involve the candidate developing cultural awareness and the acceptance of the diversity;
- Encourage candidates to expand their learning experiences through volunteerism by identifying campus and community opportunities for such practices;
- Connect candidates with community leaders and current practitioners in the field via guest lecturers and campus and community based presentations as a means of enhancing candidates' learning and advancing their awareness of the cultural and economic life of the community;
- Extend the University's efforts in advancing the intellectual and economic life of the state and region by providing advanced education and degrees to enable practitioners in the field to expand their knowledge base, meet the ever changing federal and state requirements to maintain licensure or certification in their field, and improve the economic status of those practitioners through acquisition of advanced degrees.

## Accreditation

The Master of Science - Special Education graduate degree program is accredited by the National Council Association of Teacher Education (NCATE). Our last campus visit was March 20-24, 2010. Our next campus visit is scheduled for April 2, 2017. To contact our accreditation body, please go to: [www.caepnet.org](http://www.caepnet.org).

Both the Intervention Specialist Mild/Moderate Disabilities and the Autism & Related Disabilities Option (Moderate/Intensive Disabilities) Program) Special Education Graduate Programs have received full recognition from the Council for Exceptional Children (CEC) <https://www.cec.sped.org>.

## Admission Requirements

In addition to the minimum College of Graduate Studies admission requirements, all master's in special education applicants must have the following:

- Applicants must have earned above a 2.7 grade-point average. (If an applicant's GPA is slightly below the minimum required, an applicant may include a GRE or MAT score to have their application reviewed.);
- Three Letters of Reference or Reference forms, at least two of which should be prepared by current or former faculty;
- Official transcripts of all undergraduate or graduate work completed;
- Letter of intent – Candidates must provide a one page response to each of the following:
  - What are the personal attributes that have prepared you for this profession?
  - What is the purpose of obtaining this degree?
- Special Education interview
- Application Deadline: July 15th. Students admitted once per year for fall semester.

To take classes as a non-degree candidate, the approval of the department chair must be obtained. Non-degree candidates choosing to earn a degree must make formal application for admission to the degree program. A GPA of 3.0 must be maintained in order to convert from non-degree to regular status.

Candidates without a teaching certificate or license may be admitted on an individual basis to special education graduate programs. However, additional coursework may be required for licensure. Candidates with bachelor's degrees outside the College of Education will be required to complete additional coursework for licensure. For all candidates seeking a new area of licensure, the Ohio Reading Requirement including 12 s.h. in reading is required (TERG 3701, TERG 3702, TERG 3703, TERG 3701), and passage of the appropriate PRAXIS exam is required by the Ohio Department of Education (ODE).

Individuals without a teaching certificate will also need to complete the Ohio Reading Requirement (TERG 3701, TERG 3702, TERG 3703, TERG 3701), OAE APK exam (Special Education content) and Foundations of Reading tests, PSYC 3709 or PSYC 6903 or equivalent, SPED 4849 Supervised Student Teaching, and SPED 4869 Student Teaching Seminar, and passage of the appropriate licensure exam as required by ODE.

## Graduate Faculty

**Margaret L. Briley**, Ph.D., Assistant Professor  
Deafblind; low incidence disabilities; autism with a focus on communication and social interaction

**Marcia Matanin**, Ph.D., Professor, Acting Chair  
Assessment of student learning; program assessment; clinical partnerships

## Graduate Courses

### SPED 5810 Introduction to Sign Language 3 s.h.

Deaf Culture, ASL, and English Sign Language differences will be discussed. Students will acquire basic proficiency in sign language.

**Prereq.:** Special approval.

### SPED 5828 Education for Children and Youth with Emotional and Behavior Needs 4 s.h.

Instruction, curriculum and program development for youth who are identified with emotional disturbance and as a result are often in conflict with educational and social systems. Successful completion of 30-hour field experience is required.

**Prereq.:** BCOE upper-division status.

### SPED 5833 Characteristics and Needs of Exceptional Children and Youth with Moderate/Intensive Disabilities 3 s.h.

Identification and intervention in critical areas of development for individuals with moderate/intensive disabilities including autism. Developing objectives, planning and implementing adapted curriculum in consultation with interdisciplinary specialists.

**Prereq.:** Upper-division status in COE, SPED 3715.

### SPED 5834 Educational Strategies and Methods for Children and Youth with Moderate/Intensive Disabilities 4 s.h.

Curriculum planning, teaching methods, habilitation and rehabilitation for persons with multiple and/or severe developmental disabilities. Practicum included.

**Prereq.:** Upper-division status in COE, SPED 5833.

### SPED 5835 Classroom Management for Exceptional Children and Youth 4 s.h.

Development, implementation and evaluation of behavior management plans and strategies for students with exceptionalities in the classroom environment. Behavior management techniques to facilitate learning, self-management, and the development of social skills. Communicating effective management programs to parents, caregivers, teachers, and stakeholders. Part of the STEM block (field requirement).

**Prereq.:** Upper-division status in BCOE and special approval.

### SPED 5851 Transition Planning, Social Skill Development and Health-Related Issues 3 s.h.

Emphasis on lifelong career orientation and the development and implementation of a K-12 prevocational/vocational curriculum. Effective teaching of interpersonal communication and social skills. Classroom climate, self-esteem, health-related issues. Integration of practical experiences in the classroom, home, and community.

**Prereq.:** Upper-division status in COE.

### SPED 5852 Prog Development Instructional Strategies for Learners with Moderate to Intensive Except Learn Needs 3 s.h.

This course is designed to expand technical terminology and applied practices for candidates working towards licensure for students with moderate to intensive exceptional learning needs. Candidates will create individualized objectives, apply evidence-based practices, and report progress. Successful completion of a 30 hour field experience is required.

**Prereq.:** Admission to BCOE Upper Division, SPED 5834.

**SPED 5853 Diagnosis and Intervention in Mathematics for Special Education 3 s.h.**

Principles, practices, materials and aids for teaching mathematics in special education. Diagnostic and evaluation procedures; individualized instructional techniques; observation, tutoring, and participation. Field experience required.

**Prereq.:** Upper-division status in COE.

**SPED 5858 Intervention Concepts and Strategies in Early Childhood Special Education 2 s.h.**

Review and analysis of the methods by which young children construct knowledge about their physical, social and intellectual worlds. Study of patterns of normal and atypical development from birth through age eight, as well as the development of appropriate models for effective intervention.

**Prereq.:** PSYC 3755.

**SPED 5864 Service Coordination, Collaboration, and Consultation for Students with Special Needs 3 s.h.**

Methods and strategies for the cooperation and involvement of related services professionals, parents, and children in the coordination of comprehensive educational and service plans. Collaboration, communication skills and sensitivity to individual and cultural differences are stressed. Part of the STEP block (field requirement).

**Prereq.:** Upper-division status in BCOE and special approval.

**SPED 5865 Workshop in Special Education 1-4 s.h.**

Intensive study and related activities in one or more of the following special education curriculum areas: trainable mentally retarded, educable mentally retarded, learning disability/behavior disorder, multi-handicapped. May be repeated if content is different.

**Prereq.:** Admission to upper-division COE status.

**SPED 5866 Assessment and Referral of Exceptional Children and Youth for the Intervention Specialist 3 s.h.**

Development of skills in referral and assessment techniques in the areas of mild/moderate and moderate/intensive disabilities. Informal and formal methods including observation, authentic assessments, standardized measures, interviewing. Referral, initial and subsequent evaluation, annual review concerns.

**Prereq.:** Upper-division status in COE.

**SPED 5867 Intervention and Remediation of Receptive/Expressive Language Dysfunction 3 s.h.**

Theory and practice of intervention and remediation of basic cognitive processes especially in the areas of receptive and expressive language and cognitive skills for the intervention specialist.

**Prereq.:** Upper-division status in COE.

**SPED 5868 Mild/Moderate Disabilities Practicum 4 s.h.**

Diagnostic procedures used to develop a comprehensive assessment of a child's current functioning. Individualized education program/case study developed and partially implemented.

**Prereq.:** Upper-division status in COE, SPED 5866 and SPED 5867.

**SPED 5870 Independent Study in Special Education 1-4 s.h.**

Individual work under special education staff guidance; curriculum development or special education areas; individual problems in community agencies or school.

**Prereq.:** Admission to upper-division COE status.

**SPED 5871 Characteristics and Needs of Gifted Children 3 s.h.**

Introduction to gifted education. Overview of the theoretical and research base for gifted education, including appropriate classroom environments, teacher qualifications, and support services to meet the diverse social, emotional, and intellectual needs of gifted children. Current program standards.

**Prereq.:** Admission to COE upper-division status.

**SPED 5872 Assessment and Referral for Children and Youth with Exceptionalities for the Intervention Specialist 3 s.h.**

Development of skills in referral and assessment techniques for the special educator in the areas of moderate/intensive disabilities. Emphasis will be given to informal and formal methods such as observation, authentic assessment, alternate assessment, rubrics, inventories, interviewing, task analysis, functional behavioral analysis, curriculum based measurement, DIBELS/SWIS, and formal standardized measures.

**Prereq.:** Admission to BCOE Upper Division Status.

**SPED 5873 Communication and Literacy Skills for Learners with Significant Disabilities 3 s.h.**

This course focuses on enhancing functional communication and literacy skills of students with severe disabilities. Assessment and strategies to increase communication form, function and literacy are covered. The course addresses aided and non-aided augmentative systems and alternative communication systems with an emphasis on using a multi-modality approach.

**Prereq.:** Admission to BCOE Upper Division Status.

**SPED 5878 Teaching Gifted and Talented Students 4 s.h.**

Theory and organization of curriculum with design and integration of content subjects into varying models. Wide range of strategies and identification of resources and materials as well as investigations in educational technology and appropriate applications for gifted children.

**Prereq.:** Upper division status in COE; SPED 5871 and permission of instructor.

**SPED 5965 Special Education Workshop 1-5 s.h.**

A workshop designed to examine contemporary topics in the field.

**SPED 6900 Issues, Trends & Foundations in Special Education 3 s.h.**

Exploratory study of the issues, trends, and foundations in special education. Evidence-based principles, laws and policies, diverse and historical points of view, and human issues that focus on the education of individuals with mild or intensive exceptional learning needs are examined. The relationship of special education to the organizations and functions of schools/agencies is explored.

**Prereq.:** Admission into the program and approval of the department chair.

**SPED 6901 System-Wide Consultation/Collaboration in the Schools 3 s.h.**

Current educational practices have made collaboration an essential way education professionals do their work. This course will cover the theoretical bases and consultation/collaboration skills necessary for affecting change in the educational environment from a system wide perspective. The aim of this course is to prepare Intervention Services students to function as collaborative consultants promoting systematic and planned strategies for use within the public schools and with families with children with disabilities.

**SPED 6905 Cultural/Ethnic Issues Relating to Youth and Families 3 s.h.**

Introduces pertinent theoretical cultural issues which relate to mental health professionals as they work with diversified populations. In particular, therapeutic skill enhancement of professionals will be advanced, since all counseling may be seen as cross-cultural. Group work and experiential exercises will provide an avenue for the professional and personal cultural growth of each participant. The goal is to also enhance participant's level of cultural sensitivity.

**SPED 6906 Characteristics and Behaviors of Learners with Mild/Moderate and Moderate/Intensive Exceptional Le 3 s.h.**

Course focuses on federal and state laws and initiatives that influence the operations and decisions of educational opportunities for students with mild/severe disabilities. Topics include categories of disabilities, current trends and best practices for instruction and assessment. Also, recommended collaboration strategies for educators, administrators and families.

**Prereq.:** Successful completion or concurrent enrollment in SPED 6900.

**SPED 6909 Assessment and Intervention for Students with Low Incidence Disabilities 3 s.h.**

Emphasis will be on current most effective practices of the professional collaboration process across three tiers of service to include specific models and strategies for students in general education and especially those with autism and/or a low incidence disability. Candidates will develop a team training model and will evaluate evidence-based practices.

**SPED 6911 International Area Study: Project Learning Around the World 3 s.h.**

This course is designed to enhance mental health or teacher's professional and personal level of sensitivity and competence via introducing them to innovative and traditional forms of intervention or healing in community and school settings in a developing country. Students will participate in philanthropic activities by helping to gather and deliver educational supplies via Project Learning Around the World ([www.platw.org](http://www.platw.org)).

**SPED 6912 Multilevel Tier Interventions Across General Education and Special Education Programming 3 s.h.**

Direct experiences in planned multilevel interventions across the three tiers of services within educational school systems for regular education and children with disabilities. Participation in RTI team meetings, curriculum academic and applied and functional behavioral analysis, progress monitoring, goal attainment scaling and determining effectiveness of intervention plans will be introduced.

**SPED 6914 Behavior Management for Educators 3 s.h.**

Classroom application consistent with the study of behavior management with a focus on ethical strategies and implementation of intervention techniques for learners with mild/intensive exceptional learning needs. Successful completion of a 30-hour field experience is required.

**Prereq.:** Successful completion of SPED 6906 or concurrent enrollment in SPED 6906.

**SPED 6915 Classroom Management and Crisis Intervention for Learners with Severe Emotional and Behavior Disor 3 s.h.**

Behavior analysis, behavior management, instruction, curriculum and program development for youth with severe emotional and/or behavior disorders. Advanced behavior change interventions and a practicum consisting of work in the field with emotionally and/or behaviorally disturbed youth required.

**Prereq.:** Successful completion of SPED 6909.

**SPED 6927 Curriculum Design, Adaptations and Resources for Learners with Mild/Moderate Exceptional Learning 3 s.h.**

Knowledge of curriculum terminology approaches and models, content, and design to provide and enhance access to the general curriculum for students with exceptional learning needs. Course focuses on the skills to select and implement curricular adaptations for learners with exceptional learning needs within the general education classroom.

**Prereq.:** Successful completion of SPED 6906.

**SPED 6928 Transition and Life Skill Supports for Learners with Moderate/Intensive Exceptional Learning Needs 3 s.h.**

Course focuses on best practices of the professional collaboration process with regard to the transition process for students with moderate/intensive exceptional learning needs. Learner's individual strengths and characteristics will be considered to facilitate social, vocational and daily living skills for all learners. Successful completion of a two-hour field experience is required.

**Prereq.:** Successful completion of SPED 6906.

**SPED 6929 Assessment of Gifted and Exceptional Learners 3 s.h.**

Course focuses on the educational assessment process as it applies to exceptionalities (learners with disabilities as well as gifts and talents). Topics include a review of state and federal regulations, data collection techniques including both formal and informal methods, appropriate test preparation and interpretation, design of identification and placement procedures.

**Prereq.:** Successful completion of SPED 6906.

**SPED 6930 Instructional Methodologies for Learners with Mild/Moderate and Moderate/Intensive Exceptional Lea 4 s.h.**

This course is designed to provide candidate with the opportunity to research, study, apply and analyze instructional strategies and delivery systems in the four major content areas. The candidates will use the referenced strategies to both support and promote single subject and cross-curricular high quality instruction for candidates with special needs.

**Prereq.:** Successful completion of SPED 6914, SPED 6927, SPED 6928, SPED 6929.

**SPED 6931 Clinical Experience-Learners with Exceptional Learning Needs 1 3 s.h.**

Supervised clinical experience incorporation theory, planning and implementation of services for students with mild/moderate learning needs. Weekly seminars will connect theory to practice.

**Prereq.:** SPED 6906, SPED 6927, SPED 6928, SPED 6929, SPED 6930 or taken concurrently with SPED 6930 and passage of state licensure exam.

**SPED 6932 Clinical Experience-Learners with Exceptional Learning Needs 2 3 s.h.**

Supervised clinical experience incorporation theory, planning and implementation of services for students with mild/moderate learning needs. Weekly seminars will connect theory to practice.

**Prereq.:** SPED 6906, SPED 6927, SPED 6928, SPED 6929, SPED 6930, SPED 6931 and passage of state licensure exam.

**SPED 6965 Special Topics in Disabilities Education 1-4 s.h.**

Workshop will include information on various current topics appropriate to the education of students with disabilities. These include assessment, identification, and instructional processes.

**Prereq.:** PRAXIS passage.

**SPED 6980 Topical Seminar in Special Education 1-4 s.h.**

Selected topics in special education. May be repeated for different content.

**SPED 6981 Seminar in Special Education 3 s.h.**

This course details current issues in the field of special education involving research, pedagogy, methodologies, and application. Emphasis is on the intervention and remediation of receptive/expressive language dysfunctions, as well as other issues related to children and youth with disabilities.

**Prereq.:** SPED 6983.

**SPED 6982 Educational Assessment in Gifted and Special Education 3 s.h.**

The course focuses on the educational assessment process as it applies to students with exceptionalities. Topics include a review of state and federal regulations; data collection techniques, including both formal and informal methods; appropriate test preparation and interpretations; and design of identification and placement procedures.

**Prereq.:** SPED 5871.

**SPED 6984 Major Concepts and Program Design for Students in Special Education 3 s.h.**

Major concepts, program development, and program evaluation involving youth with special needs are parts of this course. Programs related to the transition process will be studied and reviewed.

**SPED 6986 Severe Behavior Disorders 3 s.h.**

A comprehensive analysis of programs and the description of the delivery of services to a wide range of seriously emotionally disturbed children and youth.

**Prereq.:** SPED 6906 or SPED 6983.

**SPED 6991 Referral and Assessment in Early Childhood Special Education 3 s.h.**

Intensive hands-on experience in referral and assessment of young children. Emphasis on philosophies and ethical considerations, as well as techniques, instruments, and the referral process. Participation within the assessment team with parents involved as equal partners in the multidisciplinary process. Written assessment reports are required based upon knowledge of child development and a variety of sources of input.

**Prereq.:** Admission to College of Education upper division; SPED 5858.

**SPED 6992 Teaching Methods in Early Childhood Special Education 3 s.h.**

Examines accepted curricular models in early childhood special education, as well as classroom management and motivation strategies as they relate to young children with special needs. Emphasizes the inclusion of parents in planning process. Students will learn to integrate curriculum with individual IEP/IFSP goals and objectives.

**Prereq.:** SPED 5858.

**SPED 6993 Health and Related Issues in Early Childhood Special Education 2 s.h.**

A study of curricular experiences focusing on those aspects of early childhood special education dealing with the instructional applications of technology and the use of adaptive equipment and related services as these relate to technologically dependent or chronically ill children.

**SPED 6994 Field Experiences in Early Childhood Special Education 4-8 s.h.**

Supervised field experiences incorporating theory, planning and implementation of services for young children with special needs.

**Prereq.:** SPED 5858, SPED 6991, SPED 6992, SPED 6993.

**SPED 6996 Teaching Strategies/Autism 4 s.h.**

Application of assessment, curriculum planning, preparation of materials and practice teaching methods for students with autism spectrum disorders and related disabilities. Methodology emphasizes most effective practices for instructing students who need academic and/or life skills curricula.

**Prereq.:** SPED 6914 or equivalent.

**SPED 6998 AAC Strategies 3 s.h.**

Assessment and application of methods to increase communication form, function, and literacy for individuals who need alternate and/or augmentative communication (AAC).

**Prereq.:** SPED 6996 and PSYC 6960 or PSYC 6990.

**SPED 6999 Field Experiences Autism/Related Disorders 3-6 s.h.**

Supervised clinical field experiences incorporating theory, planning, and implementation of services for children with autism spectrum disorders. Weekly seminars connect theory to practice. May be repeated once for a maximum of 6 s.h.

**Prereq.:** SPED 6996, SPED 6998, and PSYC 6960 or PSYC 6990.

**SPED 7021 Field Experience 1 3 s.h.****SPED 7040 Field Experience in Gifted and Talented Education 2 s.h.**

Supervised field experience that incorporates theory, planning, and implementation of curriculum for gifted and talented students. Individual conferences and completion of contracted assignments.

**Prereq.:** SPED 5871, SPED 5878, SPED 6982, SPED 6983 and COUN 5879.

**SPED 7042 Professional Development for Classroom Teacher Educators 2 s.h.**

A restricted professional development course for classroom teacher educators invited to supervise the instructional program of student teachers and field experience students. The course concentrates on developing analytical observation, conferencing, evaluation, and supervision skills based on scientific knowledge and theoretical constructs.

**Prereq.:** Invitation from YSU and endorsement from home school district to serve as a classroom teacher educator.

**SPED 7043 Instructional Leadership in Special Education 3 s.h.**

Implementation, coordination, and evaluation of quality instructional programs for exceptional, at-risk, and other students experiencing learning problems. Administrative roles and strategies related to instructional leadership, school climate, collaborative decision making, and restructuring.

**Prereq.:** COUN 6961 and SPED 7977.

**SPED 7077 Leadership in Special Education 3 s.h.**

The course focuses on leadership, administration, and supervision of a broad range of programs and services for students with exceptionalities (students with disabilities). Topics include review of theoretical foundations, historical and sociological issues as these relate to education for special populations, as well as in-depth study of federal and state legal issues, differentiated programming and procedures, student identification and placement, individualized education plans, due process, least restrictive environment, and program monitoring and evaluation.

## Intervention Specialist Mild/Moderate Disabilities

## Intervention Specialist Mild/Moderate Disabilities

Candidates for the Intervention Specialist Mild to Moderate Licensure option must meet all requirements for admission to the Graduate College as outlined in the YSU Graduate Catalog.

Candidates with bachelor degrees outside the college of education will be required to complete additional coursework for licensure. Candidates seeking initial licensure are required to successfully complete the Ohio Reading Requirement, PSYC 3709 or PSYC 6903 and student teaching with edTPA for licensure.

For all candidates seeking a new area of licensure, 12 S.H. in reading, which includes a course in phonics, and passage of the appropriate licensure examination, are required by the Ohio Department of Education. Individuals holding teacher certification must fulfill the Ohio Reading requirement (12 S.H.). Completion of the OAE APK exam, Special Education content and the Foundations of Reading test are required by the Ohio Department of Education.

Candidates are given six (6) years in which to complete a master's degree from the day of acceptance into the Graduate Program. All candidates are required to purchase a Taskstream account to complete the critical tasks for each course, which is essential for the Council for the Accreditation of Educator Preparation (CAEP). Successful completion of the comprehensive examination is required. Candidates will be required to pass the appropriate licensure exam before completion of the culminating clinical experience (SPED 6932).

COURSE	TITLE	S.H.
<b>Common Core</b>		
FOUN 6904	Introduction to Educational Research	3
SPED 6900	Issues, Trends & Foundations in Special Education	3
SPED 6906	Characteristics and Behaviors of Learners with Mild/Moderate and Moderate/Intensive Exceptional Le	3
SPED 6914	Behavior Management for Educators	3
SPED 6929	Assessment of Gifted and Exceptional Learners	3
<b>Intervention Specialist Option</b>		
SPED 6915	Classroom Management and Crisis Intervention for Learners with Severe Emotional and Behavior Disor	3
SPED 6927	Curriculum Design, Adaptations and Resources for Learners with Mild/Moderate Exceptional Learning	3
SPED 6928	Transition and Life Skill Supports for Learners with Moderate/Intensive Exceptional Learning Needs	3
SPED 6930	Instructional Methodologies for Learners with Mild/Moderate and Moderate/Intensive Exceptional Lea	4
SPED 6931	Clinical Experience-Learners with Exceptional Learning Needs 1	3
SPED 6932	Clinical Experience-Learners with Exceptional Learning Needs 2	3
SPED 6998	AAC Strategies	3
<b>Total Semester Hours</b>		<b>37</b>

## Learning Outcomes

- Candidates will analyze learners to determine unique needs using the principles and theories of human development.
- Candidates will prioritize areas of the general curriculum and accommodations for individuals with exceptional learning needs.
- Candidates will individualize instruction to meet the unique learning, communication, social and behavior needs of students with exceptional learning needs.
- Candidates will develop and use appropriate technology adaptations for all individuals with exceptional learning needs.

- Candidates will demonstrate reinforcement-based classroom management interventions with students with exceptional learning needs.
- Candidates will evaluate the progress of students with exceptional learning needs on their IEP goals to inform the adjustment of learning and behavior plans

- Candidates will prioritize areas of the general curriculum and accommodations for individuals with exceptional learning needs.
- Candidates will individualize instruction to meet the unique learning, communication, social and behavior needs of students with exceptional learning needs.
- Candidates will develop and use appropriate technology adaptations for all individuals with exceptional learning needs.
- Candidates will demonstrate reinforcement-based classroom management interventions with students with exceptional learning needs.
- Candidates will evaluate the progress of students with exceptional learning needs on their IEP goals to inform the adjustment of learning and behavior plans

## Autism and Related Disabilities

### Autism and Related Disabilities

The Moderate/Intense Autism and Related Disabilities Option prepares candidates to teach students with autism and related disabilities as well as to develop advanced systematic instruction in life skills areas including learning and leadership skills appropriate to the area of specialization.

Candidates with bachelor degrees outside the college of education will be required to complete additional coursework for licensure. Candidates seeking initial licensure are required to successfully complete the Ohio Reading Requirement, PSYC 3709 or PSYC 6903, student teaching and the edTPA for licensure.

For all candidates seeking a new area of licensure, 12 S.H. in reading, which includes a course in phonics, and passage of the appropriate licensure examination are required by the Ohio Department of Education. Individuals holding teacher certification must fulfill the Ohio Reading requirement (12 S.H.).

Candidates are given six (6) years in which to complete a master’s degree from the day of acceptance into the Graduate Program. All candidates are required to purchase a Taskstream account to complete the critical tasks for each course, which is essential for the Council for the Accreditation of Educator Preparation (CAEP). Successful completion of the comprehensive examination is required. Candidates will be required to pass the appropriate licensure exam before completion of the clinical experience (SPED 6999).

A candidate for the program must meet all requirements for admission to the Graduate School as outlined in the YSU Graduate Bulletin. Candidates are responsible for adhering to all special education policies.

A new cohort of students will begin each fall. Applications must be received no later than July 15<sup>th</sup> for consideration for the fall cohort.

COURSE	TITLE	S.H.
<b>Core Requirements</b>		
FOUN 6904	Introduction to Educational Research	3
SPED 6900	Issues, Trends & Foundations in Special Education	3
SPED 6906	Characteristics and Behaviors of Learners with Mild/Moderate and Moderate/Intensive Exceptional Le	3
SPED 6929	Assessment of Gifted and Exceptional Learners	3
SPED 6914	Behavior Management for Educators	3
<b>Autism and Related Disabilities Option</b>		
SPED 5810	Introduction to Sign Language	3
SPED 6928	Transition and Life Skill Supports for Learners with Moderate/Intensive Exceptional Learning Needs	3
SPED 6993	Health and Related Issues in Early Childhood Special Education	2
SPED 6996	Teaching Strategies/Autism	4
SPED 6998	AAC Strategies	3
SPED 6999	Field Experiences Autism/Related Disorders	3
<b>Total Semester Hours</b>		<b>33</b>

## Learning Outcomes

- Candidates will analyze learners to determine unique needs using the principles and theories of human development.

## Master of Science in Education—Teacher Education

Dr. Marcia Matanin, Department Chairperson and Graduate Program Coordinator  
 2405 Beeghly College of Education  
 (330) 941-3251  
 mjmatanin@ysu.edu

### Introduction

The master’s degree teacher education programs provide advanced professional preparation for teachers. The Department of Teacher Education provides master’s degrees in three specialty areas for post baccalaureate study toward the M.S. in Education: Content Area Concentration, Curriculum and Instruction, and Literacy. The Teacher Education Master’s programs focus on the development of professional practitioners committed to quality teaching. These professionals are committed to reflecting on, and applying knowledge, skills, and dispositions so that all students can learn. Central to the development of such professionals is the refinement of competencies in the areas of scholarship, teaching, leadership, management, communication, and interpersonal relations. Professional practitioners are committed to the belief that all children can learn.

For more information about the Department of Teacher Education, please contact the Teacher Education Office at (330)-941-3251.

### Mission

The Department of Teacher Education’s mission is to empower teachers for professional practice. The mission commits the faculty to a theme of critical reflective practice where candidates are engaged in activities that build on their knowledge, skills, and dispositions related to effective teaching. Faculty members are committed to educating practicing professionals in the areas of: scholarship, teaching, leadership, management, communication, and interpersonal relations. The Department also offers a variety of professional development courses and workshops.

#### Accreditation

The master’s programs in the Department of Teacher Education are accredited by the National Council for Accreditation of Teacher Education (NCATE). <http://www.ncate.org/>.

## Admission Requirements

To be admitted to the Master of Science in Education degree program in the Department of Teacher Education, the applicant must have earned a bachelor’s degree from an accredited college or university.

### Regular Admission

In addition, the applicant must meet the following criteria:



- qualification for a teaching certificate/license (Ohio provisional or equivalent) if enrolled in a program leading to additional certification, licensure, validation, or endorsement. However, those individuals who have earned baccalaureate degrees but do not possess certificates/licenses will be admitted on a case-by-case basis after review of their credentials and needs relative to specific career paths. (Please check the program descriptions to see additional program requirements for separate master's strands in Teacher Education).
- A undergraduate cumulative grade point average of at least 2.7 (on a 4.0 scale) or a cumulative graduate grade point average of 3.0.
- adequate preparation for the graduate program in which the student wishes to enroll, as evidenced by three professional recommendations.

## Provisional Admission

For provisional admission, the applicant must meet the following criteria:

- qualification for a teaching certificate/license (Ohio provisional or equivalent) if enrolled in a program leading to additional certification, licensure, validation, or endorsement.
- a cumulative undergraduate grade point average of at least 2.7, or a graduate grade point average of less than 3.0, then an MAT raw score of 39 (1992 norms) or an MAT scaled score of 394 (2003 norms) is required.
- adequate preparation for the graduate program in which the student wishes to enroll, as evidenced by three professional recommendations.

Once admitted provisionally, and after nine semester hours of graduate level work have been completed, the department automatically reviews the student's record. If a GPA of at least 3.0 has been maintained, the student is converted from provisional to regular status. A provisional student whose GPA falls below a 3.0 will immediately be dismissed.

## Non-degree Admission

For non-degree admission, the applicant must meet the following criteria:

- qualification for a teaching certificate/license (Ohio provisional or equivalent) if enrolled in a program leading to additional certification, licensure, validation, or endorsement.
- a written statement verifying that he or she has a degree and an undergraduate grade point average of 2.7. An official transcript must be provided by the end of the semester in which the student is first enrolled for verification.
- an undergraduate grade point average of less than 2.7 or a graduate grade point average of less than 3.0, then an MAT raw score of 39 (1992 norms) or an MAT scaled score of 394 (2003 norms) is required.
- If the undergraduate grade point average is below 2.7 and the MAT score is below the cutoff score, admission is refused. If the graduate grade point average is below 3.0 and the MAT score is below the cutoff score, admission is refused.
- Workshop courses:
  - Anyone can sign up for credit-bearing workshops; however, in order to move those credits into a graduate program, the above applies
  - In order to move workshop credit into a graduate program, approval must be given in advance of the workshop
  - Only two YSU workshops totaling 6 hours may count in graduate programs

Non-degree status students may be blocked from enrollment in selected courses.

Non-degree students who later wish to earn a degree must make formal application for admission to the degree program and meet all requirements of the regular admission process. Non-degree status performance may inform, but in no way assures, admission into the degree program.

Once admitted as a non-degree student, a maximum of nine semester hours of regular course graduate-level work may be applied toward a degree. A GPA of

3.0 must be maintained in order to convert from non-degree to regular status. Any student in non-degree status whose cumulative grade point average drops below the minimum (3.0) will be prohibited from enrolling in further graduate coursework.

## Graduate Faculty

**M. Kathleen L. Cripe**, Ph.D., Associate Professor  
STEM education; co-teaching

**Lauren Cummins**, Ed.D., Professor  
Literacy development; mentorship; developmentally appropriate practice; learning communities; professional dispositions; digital storytelling; distance education

**Mary Lou DiPillo**, Ph.D., Associate Professor  
Content area literacy

**Mary E. LaVine**, Ph.D., Associate Professor  
Teacher mentoring; school/university partnerships

**Megan List**, Ph.D., Assistant Professor  
Technology in social studies; school/university partnerships; LGBTQ issues

**Marcia Matanin**, Ph.D., Professor, Acting Chair  
Assessment of student learning; program assessment; clinical partnerships

**Crystal L. Ratican**, Ph.D., Assistant Professor  
Early childhood education; early childhood intervention specialists, literacy; teacher education

**Gail Saunders-Smith**, Ph.D., Associate Professor  
Development of emergent writing; role of text structures on comprehension; impact of teacher-student discourse on student learning

## Graduate Courses

**ECE 6910 Curriculum, Theories, and Methods in Early Childhood Education, Pre-K-Grade 3 3 s.h.**

Investigation of curriculum, theories, and assessment and how they relate to children's learning. Attention given to the role of parents as teachers.

**ECE 6911 Early Childhood Pedagogy in Math and Science 4 s.h.**

By exploring math and science teaching practice for grades K-3, the candidates will review teaching methods of math and science, find and design math and science programs and lessons, incorporate national and state standards in teaching math and science, and strengthen the assessment methods for classroom instruction. This course is linked to ECE 6921 in terms of an action research to solve real problems in teaching math and science for the participating teachers.

**ECE 6920 Current Social Issues in Early Childhood Education 3 s.h.**

Analysis of contemporary issues, trends, and current educational policies that impact classroom practices. Includes service-learning component.

**Prereq.:** ECE 6910 or ECE 6911.

**ECE 6921 Action Research in Early Childhood Education, Pre-K-Grade 3 3 s.h.**

Designed as a culminating experience. Direct participation is required for the successful completion of a field study, onsite project, or other classroom-based experience deemed suitable by the student's major faculty advisor.

**Prereq.:** ECE 6911 and FOUN 6904.

**EMCE 5811 Early Childhood Generalist: Math and Science 3 s.h.**

By exploring math and science teaching practice for grades 4-5, the candidates will review teaching methods of math and science, master the contents stated in the Ohio Academic Standards, find and design math and science programs and lessons and strengthen the assessment methods for the classroom instruction.

**Prereq.:** Upper division status.

**EMCE 5812 Integrated Language Arts and Social Studies for 4th and 5th Grades 3 s.h.**

Candidates will learn language arts and social studies teaching methods, design integrated lessons, incorporate state and national standards, and utilize assessment methods for grades 4-5.

**Prereq.:** Upper division status.

**EMCE 5816 Diagnosis and Remediation of Elementary School Mathematics 2 s.h.**

In-depth study of diagnosis and remediation as they affect the elementary school mathematics program. Includes discussions, field trips, demonstrations and laboratory work.

**Prereq.:** Admission to COE upper-division status.

**EMCE 5854 Middle School Theory and Practice 3 s.h.**

Students will analyze and reflect on major concepts, research, and theories about the physical, cognitive, emotional, moral, and social development of students in grades 4-9 and research information concerning the historic, philosophical, and organizational components of middle level schools, including program assessment and evaluation of learning environments.

**EMCE 5900 Early/Middle Childhood Education Workshop 1-4 s.h.**

Intensive study of selected topics, issues, or problems of current interest in early and/or middle childhood education. Grading is S/U. May be repeated.

**EMCE 5901 Early/Middle Childhood Education Workshop 1-4 s.h.**

Intensive study of selected topics, issues, or problems of current interest in early and/or middle childhood education. Grading is S/U. May be repeated.

**EMCE 5902 Early/Middle Childhood Education Workshop 1-4 s.h.**

Intensive study of selected topics, issues, or problems of current interest in early and/or middle childhood education. Grading is S/U. May be repeated.

**EMCE 5903 Early/Middle Childhood Education Workshop 1-4 s.h.**

Intensive study of selected topics, issues, or problems of current interest in early and/or middle childhood education. Grading is S/U. May be repeated.

**EMCE 6918 Elementary School Mathematics Programs 3 s.h.**

An analysis of past and present programs of elementary school mathematics; evaluation of programs, including a consideration of adequacy of content, recognition of mathematics as a system, and provision of number experiences for the learner.

**EMCE 6919 Social Studies Programs in the Elementary School 3 s.h.**

Objectives of elementary school social studies programs in terms of current needs; adaptation of materials of instruction in terms of the social science skills; evaluation of student progress; critical analysis of methods of improving instruction in social studies.

**EMCE 6920 Elementary School Science Programs 3 s.h.**

Focus on the objectives for science education in the elementary school; the elementary school science curriculum; process and inquiry in the elementary school science curriculum; process and inquiry in the elementary school science program; teacher education; educational media; and the evaluation of science teaching.

**EMCE 6921 Issues, Problems, Developments, and Curriculum in Elementary Education 3 s.h.**

A study of recent trends in elementary school organization and instruction (non-graded units, team teaching, middle schools, etc.) Developing an understanding of the meaning of curriculum at the elementary level, evidence of need for curricular changes, influences of society on curriculums, exploration of current status and trends; and the role of teacher and administrator in curriculum appraisal and development.

**EMCE 6990 Independent Study 1-4 s.h.****EMCE 7042 Professional Development for Classroom Teacher Educators 2 s.h.**

A restricted professional development course for classroom teacher educators invited to supervise the instructional program of student teachers and field experience students. The course concentrates on developing analytical observation, conferencing, evaluation, and supervision skills based on scientific knowledge and theoretical constructs.

**Prereq.:** Invitation from YSU and endorsement from home school district to serve as a classroom teacher educator.

**Cross-listed:** SPED 7042 and SED 7042.

**TCED 5888 Topical Seminar 1-3 s.h.**

Examination of issues related to the teaching of early childhood education, middle childhood education, special education, multi-age education, family and consumer vocational education, or adolescent/young adult education not covered in depth of other courses.

**Prereq.:** Admission to upper-division status in COE or admission to the School of Graduate Studies.

**TCED 5888J Topical Seminar Introduction to African American Education 1-3 s.h.**

Examination of issues related to the teaching of early childhood education, middle childhood education, special education, multi-age education, family and consumer vocational education, or adolescent/young adult education not covered in depth of other courses.

**Prereq.:** Admission to upper-division status in COE or admission to the School of Graduate Studies.

**TCED 5991 Seminar in Teacher Education 1-5 s.h.**

Various topics of current value in teacher education as selected by faculty. Grading is S/U.

**Prereq.:** Admission to College of Graduate Studies.

**TCED 5992 Seminar in Teacher Education 1-5 s.h.**

Various topics of current value in teacher education as selected by faculty. Grading is S/U.

**Prereq.:** Admission to College of Graduate Studies.

**TCED 5993 Seminar in Teacher Education 1-5 s.h.**

Various topics of current value in teacher education as selected by faculty. Grading is S/U.

**Prereq.:** Admission to College of Graduate Studies.

**TCED 6901 National Board for Professional Teaching Standards (NBPTS) Assessment Center 3 s.h.**

The participants of this course will practice for the National Board for Professional Teaching Standards Assessment Center entries, which emphasize content knowledge. Participants will learn how to assess their own content knowledge. They will continue to write their NBPTS portfolio entries with direction from the professor, an NBCT mentor, and feedback from peers. Helpful aids, techniques, technology, and resources will be accessed.

**Prereq.:** Baccalaureate degree, three years of teaching, currently teaching, NBPTS candidate.

**TCED 6902 National Board for Professional Teaching Standards (NBPTS) Portfolio Development 4 s.h.**

The participants of this course will write their National Board for Professional Teaching Standards portfolio with direction from the professor, an NBCT mentor, and feedback from peers. Helpful aids, techniques, and resources will be accessed. Participants will learn how to assess their own teaching and how to best represent themselves through writing, evidence, artifacts, and videotapes.

**Prereq.:** Baccalaureate degree, three years of teaching, currently teaching, NBPTS candidate.

**TCED 6903 National Board for Professional Teaching Standards (NBPTS) Advanced Candidacy 1 s.h.**

The participants of this course need an additional year in obtaining National Board for Professional Teaching Standards certification and want to take advantage of guidance in demonstrating they are accomplished teachers. This course allows candidates to choose either a portfolio or an assessment center entry to intensely address, as it helps candidates analyze the development needed to clearly, consistently, and convincingly address the NBPTS entry in writing.

**Prereq.:** Baccalaureate degree, three years of teaching, currently teaching, NBPTS advanced candidate.

**TCED 6904 Teacher Leadership Internship 1-3 s.h.**

A practicum with emphasis on teacher supervision, coaching, mentoring, teacher leadership, and planned professional development. May be repeated. 1-3 s.h.

**Prereq.:** baccalaureate degree, three years of teaching.

**TCED 6905 Introduction to Digital Teaching and Learning 3 s.h.**

Digital teaching and learning is much more than knowing some great apps for the smart board or iPad. It is understanding a new paradigm that promotes a new pedagogy. It takes educators beyond the formal traditional classroom of lecture and paper/pencil into an interactive, student-centered environment. This course will introduce students to the paradigm of digital teaching and learning and provide the framework and foundation for change within districts and classrooms to meet 21st century learning.

**TCED 6906 Designing Curriculum for the 21st Century Learner 3 s.h.**

What does curriculum in the 21st century look like? How does the thinking paradigm differ from the traditional curriculum model? This course will build on the Introduction to Digital Teaching and Learning by introducing students to models of digital teaching that transform curriculum into the 21st century digital learning. Students will explore the process of unlearning traditional teaching methods and explore the shift to personalized, entrepreneur learning.

**Prereq.:** TCED 6905.

**TCED 6909 Orientation to On-Line Learning 1 s.h.**

This course provides an introduction and orientation to on-line learning, while acquainting students with the platform of BB9, distance education technologies, YSU and BCOE. (The ECE program highly recommends this course before taking any of the distance learning courses in the program). Grading is S/U.

**TCED 6922 Principles of Instruction 3 s.h.**

Differentiated instruction is a teaching philosophy that provides consideration for all students. Rather than promoting the traditional one size fits all teaching model. Students will explore the research, determine effective instructional practices and develop teaching materials and activities with regard to content, process and assessment. This instructional framework is designed to meet the needs of diverse student abilities, ensuring that all students can learn.

**TCED 6932 Action Research in Urban and Rural Education 3 s.h.**

This course focuses on action research as it applies to urban and rural education. Topics include reflecting to identify a problem, reviewing literature, planning and implementing interventions, data collection and analysis strategies, and sharing outcomes with others. Course may be offered onsite, online, or as a combination of both. Field experience in an appropriate educational setting is required.

**Prereq.:** Admission to School of Graduate Studies and Research.

**TCED 6933 Brain Based Teaching and Learning 3 s.h.**

This course is a critical appraisal of learning and teaching. Each learner constructs his/her brain as learning occurs. Teachers reconsider their practices in light of the science of learning research provided by education, neuroscience and socio-psychology. Course may be offered onsite, online, or as a combination of both.

**Prereq.:** Admission to School of Graduate Studies and Research.

**TCED 6934 Assessment and Accountability 3 s.h.**

In-depth study of mandates, policies, procedures, metrics, and consequences of pupil, teacher, and institutional assessment/evaluation models including formative and summative aspects.

**TCED 6936 Curriculum, Assessment, and Instruction to Improve Learning 3 s.h.**

Focus on the instructional design process from a practical perspective. Emphasis on planning the curriculum to include content analysis, learning objectives, instructional strategies, and measurement of student achievement.

**TCED 6946 Supervision of Instruction 3 s.h.**

A course dealing with the supervision of classroom teachers and other personnel for those aspiring to be principals or supervisors. Classroom observation systems, professional development programs, accountability models, and common staff relationship problems are examined.

**TCED 6951 Interpersonal Communications for Educators 3 s.h.**

Techniques of communicating effectively with teachers, administrators, nonteaching personnel, pupils, and parents. Organizing the overall communications programs within the school. Related problems.

**Prereq.:** Admission to the School of Graduate Studies and Research.

**TCED 6959 Law and Ethics for the Classroom Teacher 3 s.h.**

Examination of the legal, ethical, and civic dimensions and interrelations in teaching and schooling from the standpoint of the roles of the teacher and student.

**Prereq.:** Admission to the School of Graduate Studies and Research.

**TCED 6999 Proactive Grantseeking 3 s.h.**

Study of recent trends in grantseeking (values-based grantseeking, proactive grants systems, looping, etc.); developing an understanding of the grants marketplace; developing and refining grant-winning ideas; examining the role of teacher, administrator, and community members in grantseeking; using advisory committees/advocacy groups; writing grant proposals; government and private funding sources; choosing the correct marketplace; and follow-up procedures.

**TCED 7032 Advanced Supervision and Leadership 3 s.h.**

Practitioner-based supervision in education, from research and theory in education, business, and the applied behavioral sciences with emphasis on supervision, coaching, mentoring, teacher leadership, and planning professional development.

**TCED 8101 Adult Learning: Theories and Techniques for College Teaching 3 s.h.**

This course focuses on theory and practice related to working with adult learners in higher education and in professional development contexts. Issues related to the design, development, evaluation, and assessment of college instruction, student affairs, services, and professional development programs will be the primary content of the course.

**TEMC 6938 Early Adolescent Characteristics and Educational Program Needs 3 s.h.**

Application of research and theories about the physical, cognitive, emotional, moral, and social development of ten- to 15-year-olds to middle grade instructional decisions. Students will reflect upon and analyze policy and program implications based on developmental principles and investigate effective collaboration with family and others involved with the age group. Includes field inquiry.

**TEMC 6939 Organizational Components of Middle Level Schools 3 s.h.**

Reflection on theory and research information concerning the historic, philosophical, and organizational components of middle-level schools, including program assessment and evaluation of learning environments for appropriateness to early adolescent learners.

**Prereq.:** TEMC 6938.

**TEMC 6940 Inquiry into Current Issues in Middle-Level Education 1-3 s.h.**

Application of previously acquired knowledge, critical thinking, inquiry techniques, including Internet searches, and collaborative synthesis strategies to significant middle-level education problems. Cohort inquiry team participants will present a multimedia reform proposal. May be repeated.

**Prereq.:** TEMC 6938 and TEMC 6939.

**TEMC 6941 Pedagogy Appropriate for Early Adolescent Learners 3 s.h.**

A course linking the learning needs of early adolescents with a variety of curricular and instructional approaches and assessments. Students will reflect on pedagogical theories and research on ways to integrate middle-level curriculum and promote learning construction by students, participate in professional collaboration, investigate alternative assessment techniques, and design an action research project to apply their understanding.

**Prereq.:** TEMC 6940.

**TEMC 6942 Action Research: Pedagogy Appropriate for Early Adolescent Learners 3 s.h.**

A culminating middle-grade-level classroom teacher research project implementing the design of the study organized in TEMC 6941. Students will review authentic assessment literature, collect and analyze evaluation data collaboratively with students, interpret results, and propose improvements.

**Prereq.:** TEMC 6941.

**TEMC 6943 Field Experience: Service Learning and School-Community Collaboration 3 s.h.**

Field experience study of middle-grade-level school-community collaboration and opportunities for service learning to promote healthy development of early adolescents. Participants design, administer, and analyze an interview survey and propose a collaborative model for interaction.

**TEMC 6950 Pedagogical Content Knowledge in Mathematics for Middle School Teachers 1 3 s.h.**

Integrates mathematics content, mathematics pedagogy, and results from mathematics education research through direct instruction and inquiry-based experiences with manipulative materials and technology. Develops conceptual foundations through topics of number, number sense, and measurement; operations, functions, patterns, and algebra; and mathematical processes. Field experience in a middle grades learning environment is required.

**Prereq.:** Middle Childhood Licensure in area(s) other than mathematics.

**TEMC 6951 Pedagogical Content Knowledge in Mathematics for Middle School Teachers 2 3 s.h.**

Integrates mathematics content, mathematics pedagogy, and results from mathematics education research through direct instruction and inquiry-based experiences with manipulative materials and technology. Develops conceptual foundations through topics of geometry, measurement, and spatial sense; data analysis and probability; and mathematical processes.

**Prereq.:** Middle Childhood Licensure in area(s) other than mathematics, TEMC 6950.

**TEMC 6952 Science for Middle School Teachers 1 3 s.h.**

Using NSES/NSTA/NCATE and Ohio Standards as the framework, candidates engage in a purposefully integrated in-depth exploration of science content and pedagogy appropriate for middle grades teachers. Topics include content, inquiry, general skills of teaching, curriculum, assessment, safety and welfare, and professional growth. Experiences that integrate science content with processes and problem-solving skills for achieving life-long learning and science literacy will be emphasized. Portions of the course may be offered on-site, on-line, or as a combination of both. Field experience in a middle grades learning environment is required.

**Prereq.:** Admission to the School of Graduate Studies and Research and Middle Childhood Licensure area(s) other than science.

**TEMC 6953 Science for Middle School Teachers 2 3 s.h.**

Using NSES/NSTA/NCATE and Ohio Standards as the framework, candidates engage in a purposefully integrated in-depth exploration of science content and pedagogy appropriate for middle grades teachers. Topics include content, nature of science, issues, science in the community, and professional growth. Experiences that integrate science content with processes and problem-solving skills for achieving life-long learning and scientific literacy will be emphasized. Portions of the course may be offered on-site, on-line, or as a combination of both. Field experience in a middle grades learning environment is required.

**Prereq.:** Admission to the School of Graduate Studies and Research and Middle Childhood Licensure in area(s) other than science.

**TEMC 6954 Middle School: Theory, Research, and Practices 3 s.h.**

Major concepts, research, and theories about the physical, cognitive, emotional, moral, and social development of students in grades 4-9. Research historical, philosophical, and organizational components of middle grades schools, including program assessment and evaluation of learning environments. Emphasis will be placed on research and position statements from National Middle School Association. Students will design an action research project to apply their understanding.

**Prereq.:** Admission to School of Graduate Studies and Research.

**TEMC 6955 Field Experience: Middle Years School/Community Collaboration 3 s.h.**

Field experience study of middle grades level school/community collaboration and opportunities for service learning to promote healthy development of early adolescents. Additional research into current issues and challenges facing middle schools today. Participants design, administer, and analyze an interview and survey instrument and propose a collaborative service learning model.

**Prereq.:** Admission to School of Graduate Studies and Research.

**TERG 6917 Literacy, Reading, and Language Arts Programs 3 s.h.**

A critical appraisal of literacy, reading, and language arts programs in schools and an analysis of contemporary methodological issues.

**TERG 6922 Organizing and Managing Diverse Literacy Environments 3 s.h.**

Creating a literate environment that fosters student interest in reading and writing by integrating foundational knowledge, use of research-based instructional practices, curriculum materials, and assessment-based decision making to form instructional groups. Emphasis on student interests, reading abilities, and cultural and linguistic backgrounds as foundations for a reading and writing program that incorporates a large supply of books, technology-based information, and non-print materials.

**TERG 6923 Literacy and Phonics Instruction: Early Years 3 s.h.**

An investigation and research of the philosophy, principles, and practices of reading (including phonemic and phonetic developments) and language arts of the child, birth through age 8. Examination and application of formal and informal assessment procedures in the context of reading and language arts instruction. Language learning needs of diverse populations will be addressed.

**TERG 6924 Content Literacy Young Adolescent to Adult 3 s.h.**

Investigation of research-based philosophies, principles, and best practices for reading to learn and using the language arts in comprehending and meaning-making; using reading and the language arts as tools in learning communication.

**TERG 6926 Reading and Language Arts Assessment 1 3 s.h.**

An examination and application of formal and informal assessment procedures in the context of reading and language arts instruction. Emphasis will be placed on the use of background information and discrete data. Strategies providing for effective appraisal procedures and developmentally appropriate activities will be included.

**Prereq.:** TERG 6917.

**TERG 6927 Practicum: Coaching for Effective Literacy Instruction 3 s.h.**

The role of the literacy coach as an instructional leader in assessment-based decision making, research-based instruction, and delivery of high-quality professional development. Emphasis placed on techniques for working with individual teachers in a coaching context and groups of teachers in whole group PD settings.

**TERG 6928 Practicum: Case Study in Reading and Language Arts 3 s.h.**

Application of previous course content involves supervised formal and informal assessment of school-age pupils, developing an individualized reading plan, selecting appropriate strategies and materials for teaching, writing, tutoring log entries, developing a student portfolio, evaluating results of instruction, and writing a case study report.

**Prereq.:** TERG 6926.

**TERG 6929 The Reading and Language Arts Professional 3 s.h.**

Investigation of theories and performance-based procedures for creating, analyzing, guiding, and changing school- and system-wide reading and language arts programs.

**Prereq.:** TERG 6926.

**TERG 6970 Coaching in Diverse Classrooms 2 s.h.**

The focus of this course is on the preparation of literacy specialists to coach teachers in the implementation of culturally responsive instruction for diverse learners. This population includes special needs, culturally and linguistically diverse students. Emphasis will be placed on connections between current theory, research, and instructional practice.

**TERG 6971 Pedagogy of Effective Literacy Instruction 2 s.h.**

Candidates demonstrate knowledge of a wide range of instructional practices, methods, and curriculum materials, including technology, that support effective reading and writing instruction. Candidates integrate their knowledge and dispositions regarding curriculum, instructional practices, curricular materials, assessment, and evaluation to create literate environments that foster both reading and writing in all students.

**Prereq.:** TERG 6970.

**TERG 6972 Coaching for Effective Assessment Practice 2 s.h.**

Designed for reading specialists, this course teaches knowledge, skills, and dispositions in school-based professional development and coaching on K-12 reading assessment concepts and skills.

**Prereq.:** TERG 6971.

**TERG 6973 Professional Development in Literacy 2 s.h.**

An introduction to research and knowledge bases related to teacher professional development from a variety of perspectives. Examines coaching as one venue of supporting teacher professional development.

**Prereq.:** TERG 6972.

**TERG 6974 Advanced Action Research in Literacy 2 s.h.**

Intro to literacy research as an integral part of professional development. Builds candidate understanding of a variety of literacy research paradigms, supports engagement in inquiry to significantly advance candidates' understanding of literacy, and provides opportunities for candidates to collaborate with other literacy professionals to advance understanding of evidence-based practice.

**Prereq.:** TERG 6973.

**TERG 6975 Internship 1 4 s.h.**

Culminating activity supporting and integrating accomplishment of the Literacy Specialist Endorsement Standards I-VII. School-based practicum providing group and individual professional development to colleagues for continuous improvement of literacy curriculum, instruction, and assessment. Diagnostic reading and writing clinical experiences focus on data-based decision making to inform professional development provided in both group and individual settings (coaching).

**Prereq.:** TERG 6971.

**TERG 6976 Internship 2 4 s.h.**

Continuation of the culminating activity supporting and integrating accomplishment of the Literacy Specialist Endorsement Standards I-VII. School-based practicum providing group and individual professional development to colleagues for continuous improvement of literacy curriculum, instruction, and assessment. Diagnostic reading and writing clinical experiences focus on data-based decision making to inform professional development provided in both group and individual settings (coaching).

**Prereq.:** TERG 6975.

## Content Area Concentration

### Content Area Concentration Program

The Content Area Concentration Program in Teacher Education provides in-depth advanced study in the content area in which a teacher is licensed. Core requirements provide breadth of knowledge related to best practices in teaching, along with a research base for these practices. The content area concentration provides in-depth content knowledge, and in some cases,

leads to a content area certificate. The completion of this master's degree, along with the certificate, enables teachers to teach in the College Credit Plus Program.

COURSE	TITLE	S.H.
<b>Core Requirements</b>		
TCED 6936	Curriculum, Assessment, and Instruction to Improve Learning	3
TCED 6933 or PSYC 6903	Brain Based Teaching and Learning Psychology of Learning and Education	3
TCED 6932 or FOUN 6904	Action Research in Urban and Rural Education Introduction to Educational Research	3
TCED 6922	Principles of Instruction	3
TCED 6905	Introduction to Digital Teaching and Learning	3
Content Area Courses		18
Students choice of 18 semester hours of content area coursework in the respective area of licensure.		
Content Area, Art		
Content Area, Economics		
Content Area, English		
Content Area, Family & Consumer Science		
Content Area, Foreign Language		
Content Area, Health		
Content Area, History		
Content Area, K-12 Reading Endorsement		
Content Area, Mathematics		
Content Area, Music		
Content Area, Physical Education		
Content Area, Science		
Content Area, Teaching English to Speakers of Other Languages		
Or:		
Students choose content coursework from one of the following approved CCP certificate programs:		
Biological Sciences		
Economics		
English		
Environmental Sciences		
History		
Mathematics		
<b>Total Semester Hours</b>		<b>33</b>

Candidates must purchase a TaskStream account at the beginning of their studies, which is necessary for our accrediti The Council for the Accreditation of Educator Preparation (CAEP).

Content Area majors are to consult with assigned graduate faculty advisors regarding the choice of content coursework. For students choosing the CCP certificate programs, they are required to consult with the individual departmental graduate faculty or director for acceptance and advisement. Please contact the Department of Teacher Education for CCP program director contact information.

All candidates must take and successfully pass the Comprehensive Examination which covers the Core Requirements (TCED 6936, TCED 6933, TCED 6932, TCED 6922, and TCED 6905) in order to apply for graduation. Please see the Department of Teacher Education for applications, times, and dates for the examination. Effective Summer 2017, all candidates will be completing a comprehensive eportfolio instead of the Comprehensive Examination.

## Learning Outcomes

- Candidates develop a deep understanding of the critical concepts and principles of their field of preparation and, by completion, are able to use professional specialty practices flexibly to advance the learning of all P-12 students toward attainment of college- and career- readiness standards.
- Candidates demonstrate their proficiencies to understand and apply knowledge and skills appropriate to their professional field of specialization so that learning and development opportunities for all P-12 are enhanced, through:
  - Applications of data literacy;
  - Use of research and understanding of qualitative, quantitative and/or mixed methods research methodologies;
  - Employment of data analysis and evidence to develop supportive school environments;
  - Leading and/or participating in collaborative activities with others such as peers, colleagues, teachers, administrators, community organizations, and parents;
  - Supporting appropriate applications of technology for their field of specialization;
  - Application of professional dispositions, laws and policies, codes of ethics and professional standards appropriate to their field of specialization.
- Advanced program completers learn and apply specialized content and discipline knowledge contained in approved state and/or national discipline-specific standards.

## Curriculum and Instruction

### Curriculum and Instruction Program

The Curriculum & Instruction program is a comprehensive program completely related to curriculum and instruction in the classroom. Additionally, this programs gives students the opportunity to take other related courses of interest.

COURSE	TITLE	S.H.
Core Requirements		9
TCED 6936	Curriculum, Assessment, and Instruction to Improve Learning	
PSYC 6903	Psychology of Learning and Education	
FOUN 6904	Introduction to Educational Research	
Core Options		6
Choose one:		
FOUN 6901	Philosophical Analysis of Education	
FOUN 6902	Sociological Bases of Education	
Choose one:		
EDTC 6905	Technology in Instructional Settings	
TCED 6951	Interpersonal Communications for Educators	
TCED 6959	Law and Ethics for the Classroom Teacher	
TCED 6999	Proactive Grantseeking	
Speciality Program Area		18
TCED 6922	Principles of Instruction	
Select five courses (15 s.h.) from the College of Education approved by the student's advisor. Generally it is advised that one course in each of the foundations, counseling and special education is taken as well as three courses from the Department of Teacher Education.		
<b>Total Semester Hours</b>		<b>33</b>

Candidates must purchase a TaskStream account at the beginning of their studies, which is necessary for our accreditation through The Council for the Accreditation of Educator Preparation (CAEP).

Curriculum and Instruction majors are to consult with assigned graduate faculty advisors regarding the choice of elective coursework.

All candidates must take and successfully pass the Comprehensive Examination which covers the following coursework (TCED 6936, FOUN 6904, FOUN 6901 or FOUN 6902, and TCED 6922) in order to apply for graduation. Please see the Department of Teacher Education for applications, times, and dates for the examination. Effective Summer 2017, all candidates will be completing a comprehensive eportfolio instead of the Comprehensive Examination.

## Learning Outcomes

- Candidates develop a deep understanding of the critical concepts and principles of their field of preparation and, by completion, are able to use professional specialty practices flexibly to advance the learning of all P-12 students toward attainment of college- and career- readiness standards.
- Candidates demonstrate their proficiencies to understand and apply knowledge and skills appropriate to their professional field of specialization so that learning and development opportunities for all P-12 are enhanced, through:
  - Applications of data literacy;
  - Use of research and understanding of qualitative, quantitative and/or mixed methods research methodologies;
  - Employment of data analysis and evidence to develop supportive school environments;
  - Leading and/or participating in collaborative activities with others such as peers, colleagues, teachers, administrators, community organizations, and parents;
  - Supporting appropriate applications of technology for their field of specialization;
  - Application of professional dispositions, laws and policies, codes of ethics and professional standards appropriate to their field of specialization.
- Advanced program completers learn and apply specialized content and discipline knowledge contained in approved state and/or national discipline-specific standards.

## Literacy

### Literacy Program

The Literacy Master and/or Reading (Pre K-12) Endorsement program specialty area prepares candidates to develop advanced cognitive and leadership skills appropriate for lead teacher, curriculum coordinator, and mentor in literacy. Literacy professionals with an endorsement and/or master's degree in literacy are responsible for meeting literacy needs of all students. The standards and criteria for judging candidates are established by the International Literacy Association (ILA) and mandated by the Ohio Department of Education.

COURSE	TITLE	S.H.
Core Requirements		9
TCED 6936	Curriculum, Assessment, and Instruction to Improve Learning	
TCED 6933	Brain Based Teaching and Learning	
or PSYC 6903	Psychology of Learning and Education	
TCED 6932	Action Research in Urban and Rural Education	
or FOUN 6904	Introduction to Educational Research	
Speciality Area Courses		24
The following courses should be taken in sequence. Please see advisor for more information.		
TERG 6917	Literacy, Reading, and Language Arts Programs	
TERG 6922	Organizing and Managing Diverse Literacy Environments	

TERG 6923	Literacy and Phonics Instruction: Early Years
TERG 6924	Content Literacy Young Adolescent to Adult
TERG 6926	Reading and Language Arts Assessment 1
TERG 6927	Practicum: Coaching for Effective Literacy Instruction
TERG 6928	Practicum: Case Study in Reading and Language Arts
TERG 6929	The Reading and Language Arts Professional

**Total Semester Hours****33**

Candidates must purchase a TaskStream account at the beginning of their studies, which is necessary for our accreditation through The Council for the Accreditation of Educator Preparation (CAEP).

All literacy candidates must pass a comprehensive examination covering all of the Specialty Area Courses. Please see the Department of Teacher Education for applications, times, and dates. Effective Summer 2017, all candidates will be completing a comprehensive eportfolio instead of the Comprehensive Examination.

“An endorsement of a teacher license, valid for teaching the subject or learners named, shall be issued to an individual who holds a baccalaureate degree; who is deemed to be of good moral character; who has successfully completed an approved program of preparation; who has successfully completed an examination prescribed by the State Board of Education; and who has been recommended by the dean or head of teacher education at an approved institution. The endorsement may be added to any standard teaching certificate, or provisional or professional teaching license.” (From ODE, 2004, Teacher Education Licensure Standards) The courses required for the Endorsement are TERG 6923, TERG 6924, TERG 6926, TERG 6927, and TERG 6928.

Passage of the Ohio Assessments for Educators (OAE) is required by the Ohio Department of Education for the endorsement. There are two parts to this examination: OAE Reading-Subtest I (038) passing score of 220 or higher; and the OAE Reading-Subtest II (039) passing score of 220 or higher. To register for the exams go to <http://www.oh.nesinc.com>.

## Learning Outcomes

- Candidates develop a deep understanding of the critical concepts and principles of their field of preparation and, by completion, are able to use professional specialty practices flexibly to advance the learning of all P-12 students toward attainment of college- and career- readiness standards.
- Candidates demonstrate their proficiencies to understand and apply knowledge and skills appropriate to their professional field of specialization so that learning and development opportunities for all P-12 are enhanced, through:
  - Applications of data literacy;
  - Use of research and understanding of qualitative, quantitative and/or mixed methods research methodologies;
  - Employment of data analysis and evidence to develop supportive school environments;
  - Leading and/or participating in collaborative activities with others such as peers, colleagues, teachers, administrators, community organizations, and parents;
  - Supporting appropriate applications of technology for their field of specialization;
  - Application of professional dispositions, laws and policies, codes of ethics and professional standards appropriate to their field of specialization.
- Advanced program completers learn and apply specialized content and discipline knowledge contained in approved state and/or national discipline-specific standards.

## Master of Science in Engineering

The Rayen School of Engineering and Engineering Technology, as part of the College of Science, Technology, Engineering, and Mathematics, offers a graduate program leading to the Master of Science degree in engineering. Admission to any of the five engineering options, including chemical, civil and environmental, electrical, industrial and systems, and mechanical engineering, is granted to qualified applicants who have been judged to have a good chance of succeeding in the program and obtaining a graduate degree. Several technical concentration areas are available in each option. Students may select a thesis, non-thesis, or management curriculum plan. These opportunities serve the practicing engineer, as well as the student, who wants to pursue advanced graduate study and research. Courses offered on campus are usually held during the evenings. The educational opportunities include traditional classroom and laboratory courses, seminars, and research projects guided by experienced members of the graduate faculty.

Teaching or research assistantships are available to qualified applicants on a competitive basis upon review and recommendation by the home department. In addition, the College of Graduate Studies may offer scholarships or grants-in-aid to qualified students. Students desiring assistantships or scholarships must submit an application to the College of Graduate Studies by the specified deadlines.

This description provides an overview of admission and degree requirements, advising, and program plans. Information concerning course scheduling and prospective course offerings can be obtained from the YSU website or the individual engineering departments. Further assistance with any matter related to engineering graduate programs may be obtained by telephone, email, or personal visit to the program option coordinator in the student's area of interest.

## Graduate Assistantships

Students interested in a graduate assistantship position must submit a separate application along with three letters of recommendation to the College of Graduate Studies. Further details are provided elsewhere in the Graduate Catalog under Financial Assistance. The College of Graduate Studies will forward the application to the department. Each engineering department has established a process for evaluating applicants. Applicants should contact the option coordinator in their field of interest for details. Final recommendations are forwarded to the dean of the College of Graduate Studies. Applicants are notified by mail of the dean's decision.

In cases where the applicant is not fully prepared for their intended graduate program, completion of undergraduate deficiency courses may be required. This is common when the applicant's undergraduate degree is in a different discipline than the intended graduate program. Such applicants may be granted provisional admission as long as they require no more than 9 semester hours of undergraduate deficiency courses. In addition, some programs may require stronger evidence of academic ability (e.g. higher GPA) for applicants having undergraduate degrees outside the discipline.

## Non-Degree Admission

Students meeting all requirements for admission to the College of Graduate Studies, but who do not intend to pursue a Master of Science degree, may apply for non-degree admission. In addition, an applicant whose academic record does not meet the required standards for admission to a Master of Science program may apply for non-degree admission to the College of Graduate Studies. For students wishing to pursue a Master of Science in Engineering degree, non-degree admission provides an opportunity to demonstrate his/her academic capability. Non-degree students completing nine semester hours of appropriate graduate courses with grades of B or better may apply for admission to a specific engineering degree option with regular or provisional status to continue his/her study for the Master of Science in Engineering.

## Advisement

The Rayen School of Engineering and Engineering Technology requires an advisor for each individual graduate student. An advisor is recommended by the option coordinator in the student's discipline and assigned by the College of Graduate Studies upon acceptance. It is the responsibility of the student to initiate contact with his or her advisor, and this should be done as soon as possible before registering for the first time and at the time of course registration each semester. The student, with the help of his or her advisor, shall develop a study plan that includes goals and desired outcomes, and a coursework plan. The plan may be revised, if necessary, as the study progresses, with the approval of the advisor and option coordinator.

## Admission Requirements

### Degree Programs

Applicants must meet all of the general requirements for admission to the College of Graduate Studies. Admission to the program is selective and based on the qualifications of the applicant, the needs of the program, and the availability of funding. Applicants with lesser qualifications may be granted provisional graduate student status based on evaluation of their undergraduate records, standardized test (e.g. GRE) results, work experience, and other professional qualifications.

## Chemical Engineering

**Martin A. Abraham**, Ph.D., Professor  
Green engineering; sustainability

**Pedro Cortes**, Ph.D., Associate Professor  
Structure-property relationships of polymers; composites and hybrid materials; smart materials and structures; development of chem-bio sensing platforms based on carbon nanotubes

**Jeanette M. Garr**, Ph.D., Professor

## Civil and Environmental Engineering

**Shakir Husain**, Ph.D., Professor  
Pavement materials; design; construction

**AKM Anwarul Islam**, Ph.D., Professor, Chair  
Impact of blast on highway bridges; use of CFRP in enhancing structural strength of concrete members; structural health monitoring of bridges using wireless sensor network

**Jai K. Jung**, Ph.D., Assistant Professor  
Underground infrastructure sustainability; soil dynamics and earthquake engineering; sustainable construction engineering; spatial assessment of natural/anthropogenic hazards

**Suresh Sharma**, Ph.D., Assistant Professor  
Complex hydrologic and water quality modeling using various types of data driven, conceptual, physically based and distributed and semi-distributed watershed models in climate change/variability context

**Anthony S. Vercellino**, Ph.D., Assistant Professor  
Water/wastewater treatment; water reuse applications; membrane filtration processes; anti-microbial compounds

## Electrical and Computer Engineering

**Jalal Jalali**, Ph.D., Professor, Chair  
Electromagnetic; power systems; power electronics; FR engineering; energy efficiency

**Frank Xiyang Li**, Ph.D., Professor  
Electron spin resonance imaging; EMC, RF, and software engineering; networks; applied magnetic fields

**Faramarz Doc Mossayebi**, Ph.D., Associate Professor

Control systems; nonlinear dynamic systems; chaos theory; digital signal processing

## Industrial and Systems Engineering

**Martin Cala**, Ph.D., Professor  
Human factors; quality and productivity

**Brett P. Conner**, Ph.D., Associate Professor  
Materials and process development for additive manufacturing also known as 3D printing; functionally graded materials (FGMs); high-strain rate behavior of AM materials; 3D printing of metal casting tooling; business models for additive manufacturing

## Mechanical Engineering

**Kyosung Choo**, Ph.D., Assistant Professor  
Jet impingement; two-phase flow; electronics cooling; energy audit of building and data center; microchannel heat exchanger; thermal management of energy systems

**Hazel Marie**, Ph.D., Associate Professor, Chair  
FEA/CFD modeling applied to solid-fluid interaction of thin film lubrication sealing; mechanical material modeling of soft biological tissue

**Stefan Moldovan**, Ph.D., Assistant Professor  
Multi-scale computational fluid dynamics; experimental techniques as applied to crystal growth within reactors, finger seals, hydrodynamic bearings and dampers; wet friction materials in torque converters

**Jae Joong Ryu**, Ph.D., Assistant Professor  
Mechanical contact, fatigue, fracture, wear and environmental corrosion on structured surfaces under applied forces; fundamental investigation of tribo-corrosion of metallic joint replacements in physiological environment

**Elvin B. Shields**, Ph.D., Professor

**Virgil C. Solomon**, Ph.D., Associate Professor  
Synthesis of shape memory alloys, ceramic-metal composites and nanostructures and their characterization using metallography, thermal analysis and analytical scanning and transmission electron microscopy techniques.

## Chemical Engineering

### Option Coordinator

Douglas M. Price  
2068 Moser Hall  
(330) 941-3019  
dmprice@ysu.edu (scmartin@ysu.edu)

### Option Description

Chemical engineers apply scientific and engineering knowledge to design and produce a wide variety of consumer and industrial products, including food, fuels, plastics, pharmaceuticals, etc. Chemical engineers find exciting global career opportunities in the chemical, biomedical, nuclear, pharmaceutical, and energy fields. Graduate study in chemical engineering provides students with the scientific and professional knowledge necessary for their field of interest and develops student abilities to formulate solutions to new and complex problems in the context of current environmental, social, and economic considerations. These objectives are accomplished by flexible plans of study designed to meet the needs of the program's graduate students. The program includes thesis, non-thesis, and engineering management plans.

Facilities for advanced study and research are located in Moser Hall, which houses a variety of well-equipped laboratories. These include the heat transfer lab, distillation lab, and biochemical engineering lab. In addition, the college



computer lab provides access to a large number of modern PCs with high-speed internet connections.

The Master of Science in Engineering may be characterized as being both career-oriented and flexible. Program plans and options are available to accommodate the needs of nearly every engineering graduate student. Graduate students enrolled in any of the engineering graduate programs must complete:

- 30 semester hours for the thesis plan,
- 33 semester hours for the nonthesis plan, or
- 36 semester hours for the management plan.

The degree requirements consist of core courses, technical courses, and project courses. The management plan also requires a series of business courses. These degree programs are designed to provide graduate students with the knowledge and skills to excel in professional careers and/or pursue a PhD or doctorate degree in engineering. To obtain a list of core and technical course requirements for a particular engineering discipline, students should contact the option coordinator for the program of interest.

## Program Plans

### Thesis Plan

Graduate students choosing the thesis plan are required to complete 30 semester hours of graduate coursework. This generally consists of:

- six to nine semester hours of core courses,
- 15-18 semester hours of technical concentration courses, and
- six semester hours of thesis.

This plan is strongly recommended for all candidates who wish to continue their graduate studies beyond the master's degree. The thesis provides firsthand experience with experimental design, literature searches, research methodology, technical report writing, and oral presentation of results. Additionally, the thesis option can lead the graduate student to a higher level of expertise in the chosen area of specialization.

### Non-thesis Plan

The non-thesis plan is designed for students who wish to enhance their knowledge and skills to succeed in careers as practicing engineers, but are unlikely to pursue a PhD or doctorate degree. A total of 33 semester hours of coursework is required for this plan. In addition to 6-9 semester hours of core courses, every student enrolled in this option is required to complete 21-24 semester hours of technical courses related to their discipline, and a 3-semester-hour graduate project course. A graduate student enrolled in a graduate project course will be required to defend the results of his or her project by giving a presentation to the engineering faculty and students.

### Management Plan

Students who have been in the work arena and are moving into an engineering management role may wish to choose the management plan. A total of 36 semester hours of coursework is required for this plan. This consists of:

- 6-9 semester hours of core courses,
- 9-12 semester hours of business courses,
- 12-18 semester hours of technical courses, and
- a 3-semester-hour graduate project.

A graduate student enrolled in a graduate project course will be required to defend the results of his or her project by giving a presentation to the engineering faculty and students.

## Chemical Engineering Requirements

At the time of initial enrollment, the student will select a program plan (thesis, non-thesis, or management) and technical area of interest (e.g. chemical processes, biochemical, environmental, materials). The degree requirements

for each program plan are listed in the general description of the Master of Science in Engineering program. A list of required courses and possible electives for each plan may be obtained from the graduate program's option coordinator.

In cooperation with an assigned faculty advisor, each student will establish a set of academic goals and desired outcomes, and a coursework plan to meet those objectives. Upon completion of the graduate program, all students will complete either a written or an oral assessment of the effectiveness of the program in meeting their established goals and outcomes.

Thesis students who have registered for all required thesis hours and have completed all course requirements but have not finished the thesis are required to maintain current student status if they expect to utilize any University service (e.g., parking, computers, library, advisors' assistance, thesis defense, etc.). This can normally be accomplished by registering for at least one hour of thesis credit.

## Learning Outcomes

- an ability to formulate and solve advanced engineering problems;
- an ability to apply advanced knowledge of chemistry, biology and/or material science in chemical engineering.
- an ability to design and conduct research projects;
- technical writing and oral communication skills.

### CHEN 5805 Principles of Biomedical Engineering 3 s.h.

Application of engineering principles and methods of analysis to processes in the human body. Rheological, physical and chemical properties of body fluids. Dynamics of the circulatory system. The human thermal system. Transport through cell membranes. Analysis and design of artificial organs.

**Prereq.:** CHEN 2684 or consent of instructor.

### CHEN 5810 The Business of Engineering 3 s.h.

Industrial processing facilities, and the engineers and business people that run them. Decision-making perspectives and the technical and communication skills of each group are compared. Focus is on quality control, R&D, and efficiency.

### CHEN 5811 Advanced Transport Phenomena 3 s.h.

Development of basic differential balance equations for mass, momentum and energy. Analytical and approximate solutions to the equation of change with application to the analysis of common engineering problems.

**Prereq.:** CHEN 3786.

### CHEN 5820 Industrial Pollution Control 3 s.h.

Types, sources and effects of industrial and hazardous waste; principles of industrial and hazardous waste control; discussion and design of biological, physical, and chemical treatment processes.

**Prereq.:** CHEN 2684 or consent of instructor.

### CHEN 5821 Fundamentals of Polymer Science 3 s.h.

The survey of polymerization mechanisms, polymer structure-property relationships, transport properties, flammability-related plasticizers and solvents as well as design applications.

**Prereq.:** CHEN 2684 or consent of instructor.

### CHEN 5830 Nuclear Reactors 3 s.h.

Neutron interactions and scattering; moderation ratio, the steady state reactor core and four factor equation, the diffusion equation for various reactor geometries and the reflected reactor core.

**Prereq.:** CHEN 3726 or consent of instructor.

### CHEN 5835 Introduction to Nuclear Fusion 3 s.h.

Fusion reactors; the kinetics of fusion reactions. Plasma confinement technology.

**Prereq.:** CHEN 3726.

**CHEN 5845 Corrosion Engineering 3 s.h.**

Introduction to causes and forms of corrosion, corrosion rate calculations, electrode potentials, electrochemistry, corrosion testing, and effects of corrosion on mechanical properties. Theory and use of corrosion inhibition methods.

**Prereq.:** CHEN 2684.

**CHEN 5850 Industrial Processes 3 s.h.**

A fundamental approach to the design of industrial chemical processes. Emphasis upon flow-charting, chemical reactions, separations involved, thermodynamics, and economic considerations. Food and pharmaceutical processing is a major focus.

**Prereq.:** CHEN 2684 or consent of instructor.

**CHEN 5854 Corrosion Engineering 3 s.h.**

Introduction to causes and forms of corrosion, corrosion rate calculations, electrode potentials, electro-chemistry, corrosion testing, and effects of corrosion on mechanical properties. Theory and use of corrosion inhibition methods.

**Prereq.:** Junior or Senior Standing or Approval of the Instructor.

**CHEN 5883 Mathematical Methods in Chemical Engineering 3 s.h.**

The applications of advanced mathematics to the solution of chemical engineering problems. Topics covered include treatment and interpretation of engineering data, modeling of chemical engineering systems and formulation of ordinary and partial differential equations governing chemical engineering operations and their solutions by use of numerical and analytical techniques.

**Prereq.:** CHEN 3786.

**CHEN 5886 Nuclear Reactor Design 3 s.h.**

The steady state reactor core; four-factor equation, resonance escape probability, neutron flux distribution in various geometrics, two-group and multigroup theories. Transient reactor behavior and control; effect of delayed neutrons, fission product poisoning, nuclear fuels, nuclear heat transfer and burnout problems, reactor economy; fuel burnup and power cost. Thermal breeder and fast reactors. Neutron flux distribution measurements. Radiation detection and monitoring.

**Prereq.:** CHEN 3726 or consent of instructor.

**CHEN 6981 Advanced Chemical Reaction Engineering 3 s.h.**

Advances topics in chemical reaction engineering including non-elementary reaction kinetics, reactor design for autocatalytic reactions, temperature and energy effects in chemical reactions, heterogeneous catalysis, catalyst preparation, fabrication and activation.

**Prereq.:** CHEN 4880.

**CHEN 6983 Modern Power Sources 3 s.h.**

Analytical and descriptive study of modern power plants. Combustion and environmental problems with fossil-fueled power plants. Electromagnetic circuits and devices with emphasis on the principles of electromechanical energy conversions.

**CHEN 6984 Nuclear Fission and Fusion Power Sources 3 s.h.**

Energy available from fission and fusion nuclear reactions, on setting and maintaining chain reaction. Mechanical and electromagnetic confinement techniques. Reactor design, heat removal, and safety problems.

**CHEN 6985 Electromechanical Motion Devices 3 s.h.**

Thermodynamics of batteries, and electric and fuel cells. Power from nuclear isotopes. Features common to rotating electromagnetic fields. Analysis and design of electromechanical power components.

**CHEN 6990 Thesis 1-9 s.h.**

Research selected and supervised by departmental advisor. May be repeated for a maximum of nine semester hours.

**Prereq.:** Acceptance by departmental committee.

## Civil and Environmental Engineering

### Option Coordinator

Anwarul Islam  
2445 Moser Hall

(330) 941-3026

aaislam@ysu.edu

## Program Description

Civil and environmental engineers apply scientific and engineering knowledge to protect and improve the infrastructure, public health and environment.

Graduate study in civil and environmental engineering provides students with advanced scientific and engineering knowledge in their field of interest and develops their abilities to formulate solutions to new and complex problems in the context of current environmental, social, and economic considerations. These objectives are accomplished by flexible plans of study designed to meet the needs of individual graduate students. Graduates find fulfilling careers in public and private industries and consulting practices, and are prepared for doctoral-level work leading to research/teaching careers. The program includes thesis, non-thesis, and management plans. The civil and environmental engineering program offers opportunities for advanced study in two main areas:

- structural/geotechnical engineering and
- environmental/water resources engineering.

Facilities for advanced study and research are located in Moser Hall, which houses a variety of well-equipped laboratories. These include the SMART Lab, strength of materials lab, hydraulics/fluid mechanics lab, environmental engineering lab, geotechnical engineering lab, and concrete mixtures lab. In addition, the college computer lab provides access to a large number of modern PCs equipped with high-speed internet connections and latest software for modeling in various fields of research.

The Master of Science in Engineering may be characterized as being both career-oriented and flexible. Program plans and options are available to accommodate the needs of nearly every engineering graduate student. Graduate students enrolled in any of the engineering graduate programs must complete:

- 30 semester hours for the thesis plan,
- 33 semester hours for the nonthesis plan, or
- 36 semester hours for the management plan.

The degree requirements consist of core courses, technical courses, and project courses. The management plan also requires a series of business courses. These degree programs are designed to provide graduate students with the knowledge and skills to excel in professional careers and/or pursue a PhD or doctorate degree in engineering. To obtain a list of core and technical course requirements for a particular engineering discipline, students should contact the option coordinator for the program of interest.

## Program Plans

### Thesis Plan

Graduate students choosing the thesis plan are required to complete 30 semester hours of graduate coursework. This generally consists of:

- six to nine semester hours of core courses,
- 15-18 semester hours of technical concentration courses, and
- six semester hours of thesis.

This plan is strongly recommended for all candidates who wish to continue their graduate studies beyond the master's degree. The thesis provides firsthand experience with experimental design, literature searches, research methodology, technical report writing, and oral presentation of results. Additionally, the thesis option can lead the graduate student to a higher level of expertise in the chosen area of specialization.

### Non-thesis Plan

The non-thesis plan is designed for students who wish to enhance their knowledge and skills to succeed in careers as practicing engineers, but are

unlikely to pursue a PhD or doctorate degree. A total of 33 semester hours of coursework is required for this plan. In addition to 6-9 semester hours of core courses, every student enrolled in this option is required to complete 21-24 semester hours of technical courses related to their discipline, and a 3-semester-hour graduate project course. A graduate student enrolled in a graduate project course will be required to defend the results of his or her project by giving a presentation to the engineering faculty and students.

## Management Plan

Students who have been in the work arena and are moving into an engineering management role may wish to choose the management plan. A total of 36 semester hours of coursework is required for this plan. This consists of:

- 6-9 semester hours of core courses,
- 9-12 semester hours of business courses,
- 12-18 semester hours of technical courses, and
- a 3-semester-hour graduate project.

A graduate student enrolled in a graduate project course will be required to defend the results of his or her project by giving a presentation to the engineering faculty and students.

## Civil and Environmental Engineering Requirements

At the time of initial enrollment, the student will select a program plan (thesis, non-thesis, or management) and technical concentration area (structural/geotechnical or environmental/water resources). The requirements for each program plan are listed in the general description of the Master of Science in Engineering program. Lists of required courses and possible electives for each plan may be obtained from the graduate program coordinator.

In cooperation with an assigned faculty advisor, each student will establish a set of academic goals and desired outcomes, and a coursework plan to meet those objectives. Upon completion of the graduate program, all students will complete either a written or an oral assessment of the effectiveness of the program in meeting their established goals and outcomes.

Thesis students, who have registered for all required thesis hours and have completed all course requirements but have not finished the thesis, are required to maintain current student status if they expect to utilize any University service (e.g., parking, computers, library, advisors' assistance, thesis defense, etc.). This can normally be accomplished by registering for at least one hour of thesis credit.

Non-thesis students must complete a graduate project under the guidance of a faculty member. Students with management option should consult the graduate program coordinator to develop their coursework plan.

## Learning Outcomes: Civil and Environmental Engineering

- an ability to formulate and solve advanced civil engineering problems; ;
- an ability to apply knowledge in a specialized area of civil and environmental engineering;
- an ability to design and conduct research projects;
- an understanding of business fundamentals, including project planning and management, asset management, leadership, and entrepreneurship;
- an understanding of the role of engineers in society.

### CEEN 5820 Pavement Material and Design 3 s.h.

Design methods for flexible, rigid and other wheel-supporting pavements to include investigation, testing and preparation of subgrade, base course and pavement materials, design of various pavement mixtures, stresses in pavements, pavement design, and strengthening existing pavements.

**Prereq.:** CEEN 3720 and CEEN 4881.

### CEEN 5829 Civil Engineering Materials - Concrete 3 s.h.

A course designed to broaden the student's understanding of Portland Cement Concrete as a construction material. Topics include the study of cement, hydration of cement, aggregates, admixtures for concrete, mix design handling and placing, curing and properties of Portland Cement Concrete. Testing of Concrete, quality control and special concretes are also included. A library research paper on a concrete-related topic of the student's choice is required.

**Prereq.:** CEEN 3749 or permission of instructor.

### CEEN 5832 Natural Systems Engineering 3 s.h.

Introduction to the features, functions and values of natural aquatic systems, and engineering approaches to analysis and restoration design. Focus on wetlands and streams. Topics include regulations, wetland delineation, constructed wetland design, basic stream geomorphology, and stream restoration design.

**Prereq.:** CEEN 3736 or permission of instructor.

### CEEN 5837 Environmental Engineering Design 3 s.h.

Theory and design of unit operations and processes for treatment of drinking water and municipal wastewater.

**Prereq.:** CEEN 3736.

### CEEN 5849 Structural Analysis 2 3 s.h.

Analysis of statically indeterminate beams, trusses, bents and multistory frames, utilizing concepts of strain energy, virtual work, slope-deflection, and moment distribution. Introduction to matrix methods of analysis using force and displacement methods.

**Prereq.:** CEEN 3749.

### CEEN 5855 Reinforced Concrete Design 3 s.h.

An introduction to the behavior, analysis, and design of reinforced concrete members. Included are singly and doubly reinforced beams, tee-beams, slabs, short and long columns.

**Prereq.:** CEEN 3749.

### CEEN 5856 Steel Design 3 s.h.

An introduction to the behavior and design of steel structures. Included is the design of rolled and built-up tension members, beams, columns, beam-columns, welded and bolted connections.

**Prereq.:** CEEN 3749.

### CEEN 5877 Systems Engineering and Project Management 3 s.h.

Systems approach to engineering design; non-linear models; linear programming; dynamic programming; network analysis; project management.

**Prereq.:** MATH 3705.

### CEEN 5882 Foundation Engineering 3 s.h.

Analysis and design of various foundations, including abutments, piers, piles, and footings; slope stability of embankments.

**Prereq.:** CEEN 4881 and CEEN 5855.

### CEEN 5883 Bridge Engineering 3 s.h.

Analysis and design of concrete and steel bridges; specifications and code requirements; design detailing; effects of natural and man-made hazards on bridges; implications of bridge failures.

**Prereq.:** CEEN 5855 and CEEN 5856.

### CEEN 5884 Solid and Hazardous Waste Management 3 s.h.

Sources, characteristics, handling and disposal options for solid waste and hazardous waste; topics include regulations, health effects, waste minimization, collection systems, landfill design, treatment and processing methods, and site assessment.

**Prereq.:** CEEN 3736.

### CEEN 6910 Advanced Strength of Materials 3 s.h.

The basic methods of structural mechanics, such as conditions of equilibrium and compatibility, stress-strain relations. General treatment of energy principles including virtual work, minimum potential energy; applications to statically determinate and indeterminate systems such as rings, curved beams, plates, and other elastic systems.

**CEEN 6920 Wetlands Engineering 3 s.h.**

Wetland characteristics-soils, hydrology, and vegetation; wetland functions and values; regulations; planning, theory, design and construction of created and constructed wetlands; applications in wetland mitigation, wastewater treatment, and pollution control.

**Prereq.:** CEEN 3736 Fundamentals of Environmental Engineering or equivalent.

**CEEN 6921 Groundwater and Surface Water Modeling 3 s.h.**

Mathematical simulation of hydrodynamic processes and pollutant transport in subsurface and surface water environments.

**Prereq.:** CEEN 3716 Fluid Mechanics and CEEN 3736 Fundamentals of Environmental Engineering.

**CEEN 6930 Sediment and Contaminant Transport 3 s.h.**

Understanding of sediment and contaminant transport in fluvial environments. Topics include sediment characteristics, incipient motion, scour, bankfull discharge, advection, and mixing.

**Prereq.:** CEEN 3717 or equivalent.

**CEEN 6941 Structural Mechanics 3 s.h.**

Study of beams under lateral load; beams with combined lateral load and thrust; buckling beams on elastic foundations; applications of Fourier series and virtual work principles to beam type structures; stress and strain in three dimensions; applications to flexure of beams and plates and to constrained torsion; elements of engineering theory of plates.

**CEEN 6947 Finite Element Analysis 3 s.h.**

An introduction to finite element techniques as applied to problems in structural mechanics. Direct and variational methods of element formulation with application to beams, beam columns, frames, arches, thin plates, and shells.

**CEEN 6951 Construction Project Management 3 s.h.**

An integrated approach to construction project management. Advanced topics of Program Evaluation and Review Technique (PERT) and Critical Path Method (CPM) and its application in construction project scheduling. Resource allocation and leveling, construction cost control, computer simulation of construction operations, and expert systems construction.

**CEEN 6952 Foundation Engineering 3 s.h.**

Principles of mechanics of materials applied to foundation problems; stresses and deformations in soils, consolidation theory; shallow and deep foundation design.

**CEEN 6953 Flow Through Porous Media 3 s.h.**

Analysis of seepage volume and stresses due to flow of water through soils in connection with dams, slopes, excavations, subsurface drainage, and wells.

**CEEN 6956 Advanced Soil Mechanics 3 s.h.**

Development of shear strength theories, Mohr-Coulomb-Hvorslev equation, critical path concept, stability of slopes, lateral earth-pressure theories, development of bearing capacity equations.

**Prereq.:** CEEN 4881 or equivalent.

**CEEN 6957 Structural Stability 3 s.h.**

A study of the elastic stability of engineering structures, beam columns, static buckling of elastic beams, frames, plates, and shells, dynamic stability of beams and plates.

**CEEN 6958 Structural Dynamics 3 s.h.**

Analysis of the response of structures to air blasts and earthquake motions; development of both the normal mode and frequency response methods in dealing with periodic and nonperiodic excitations.

**CEEN 6959 Advanced Steel Design 3 s.h.**

Advanced topics in the structural design of girders, frames, and trusses. Light gauge metal structures. Use of modern alloys and hybrid systems.

**CEEN 6961 Advanced Concrete Design 3 s.h.**

Consideration of advanced design techniques for reinforced concrete members and structures such as composite and prestressed concrete beams, box girders, and slabs.

**CEEN 6965 Special Topics 3 s.h.**

The application, in civil engineering, of special topics selected by the faculty from fields of current research interest or special emphasis. May be repeated up to six semester hours.

**CEEN 6967 Biological Treatment Processes 3 s.h.**

Theory and design of biological processes used in the treatment of municipal and industrial wastewaters, and in the remediation of hazardous wastes.

**Prereq.:** CEEN 3736.

**CEEN 6972 Advanced Topics in Environmental Engineering 3 s.h.**

Advanced concepts related to the transport, reaction, phase distribution, and fate of pollutants in both the natural environment and treatment systems.

**Prereq.:** CEEN 3736.

**CEEN 6973 Watershed Modeling 3 s.h.**

Application of hydrologic principles for modeling point and non-point source pollution at the watershed scale; the nutrient and sediment transport simulation using SWAT model; understanding the fundamental processes of pollutant movement through the soils and overland flow; application of data driven modeling in Water Resources Engineering.

**CEEN 6975 Physical and Chemical Treatment Processes 3 s.h.**

Theory and design of physical and chemical processes used in the treatment of water supplies, wastewater, and hazardous wastes.

**Prereq.:** CEEN 3736.

**CEEN 6976 Design of Small Dams 3 s.h.**

Flood routing, reservoir engineering. Hydraulic design of small gravity, earth fill and rock fill dams, spillways, and energy dissipaters.

**Prereq.:** CEEN 3717 and CEEN 6977.

**CEEN 6977 Hydrology 3 s.h.**

Precipitation; hydrologic abstractions; runoff; urban and small watershed hydrology; frequency analysis; digital simulation.

**CEEN 6978 Water Resources Policy and Management 3 s.h.**

International, national, and local water resources case studies, laws, policies, and management strategies are discussed. The need and demand for water; technical, economic, financial, social, environmental, and political considerations; data requirements; multipurpose projects.

**CEEN 6979 Water Quality Modeling 3 s.h.**

Mathematical modeling of physical, chemical, and biological processes in natural systems; development of computer models to simulate the fate and transport of pollutants in lakes, streams, and estuaries; application of models to evaluate water resource management options.

**Prereq.:** CEEN 3736 Fundamentals of Environmental Engineering.

**CEEN 6989 Graduate Projects 1-3 s.h.**

Special projects involving research, analysis, design, or other independent investigation, undertaken by the M.S. student under the direction of a graduate faculty member with the approval of the department chair. Credit will be determined in each case based on the nature and extent of the project.

**CEEN 6990 Thesis 1-9 s.h.**

Hours arranged. May be repeated.

## Electrical Engineering

### Electrical Engineering

#### Option Coordinator

Jalal Jalali  
2055 Moser Hall  
(330) 941-3012  
jjalali@ysu.edu

#### Option Description

The Department of Electrical and Computer Engineering provides opportunities for post-baccalaureate study toward the Master of Science in Engineering. These opportunities serve the practicing engineer as well as the student who wants to pursue advanced graduate study and research. Thesis, non-

thesis, and management options/plans are available. Areas of study include control systems, digital systems, computer engineering, RF communications, computer-aided design, device and circuit modeling, solid-state devices, sensors, power systems and energy, power electronics, electromagnetic fields, electromechanical systems, and system analysis and design. The student is encouraged to interact with the faculty and explore these opportunities.

The Master of Science in Engineering may be characterized as being both career-oriented and flexible. Program plans and options are available to accommodate the needs of nearly every engineering graduate student. Graduate students enrolled in any of the engineering graduate programs must complete:

- 30 semester hours for the thesis plan,
- 33 semester hours for the nonthesis plan, or
- 36 semester hours for the management plan.

The degree requirements consist of core courses, technical courses, and project courses. The management plan also requires a series of business courses. These degree programs are designed to provide graduate students with the knowledge and skills to excel in professional careers and/or pursue a PhD or doctorate degree in engineering. To obtain a list of core and technical course requirements for a particular engineering discipline, students should contact the option coordinator for the program of interest.

## Program Plans

### Thesis Plan

Graduate students choosing the thesis plan are required to complete 30 semester hours of graduate coursework. This generally consists of:

- six to nine semester hours of core courses,
- 15-18 semester hours of technical concentration courses, and
- six semester hours of thesis.

This plan is strongly recommended for all candidates who wish to continue their graduate studies beyond the master's degree. The thesis provides firsthand experience with experimental design, literature searches, research methodology, technical report writing, and oral presentation of results. Additionally, the thesis option can lead the graduate student to a higher level of expertise in the chosen area of specialization.

### Non-thesis Plan

The non-thesis plan is designed for students who wish to enhance their knowledge and skills to succeed in careers as practicing engineers, but are unlikely to pursue a PhD or doctorate degree. A total of 33 semester hours of coursework is required for this plan. In addition to 6-9 semester hours of core courses, every student enrolled in this option is required to complete 21-24 semester hours of technical courses related to their discipline, and a 3-semester-hour graduate project course. A graduate student enrolled in a graduate project course will be required to defend the results of his or her project by giving a presentation to the engineering faculty and students.

### Management Plan

Students who have been in the work arena and are moving into an engineering management role may wish to choose the management plan. A total of 36 semester hours of coursework is required for this plan. This consists of:

- 6-9 semester hours of core courses,
- 9-12 semester hours of business courses,
- 12-18 semester hours of technical courses, and
- a 3-semester-hour graduate project.

A graduate student enrolled in a graduate project course will be required to defend the results of his or her project by giving a presentation to the engineering faculty and students.

## Electrical Engineering Requirements

The basic degree requirements for each program plan are described under the general program description for the Master of Science in Engineering. Descriptions of course requirements and available electives for each program plan in the electrical engineering master's program can be obtained from the graduate option coordinator.

Within the first semester of graduate study, every graduate student must complete an option plan form signed by the student, academic advisor, and the department graduate option coordinator. The student may seek another advisor in case of interest changes. Likewise, the student-advisor relationship may be terminated at the advisor's recommendation. The graduate option coordinator is available to discuss these and other issues as appropriate.

Selected electrical engineering (ECEN) graduate courses are offered each semester based on the available teaching resources and student needs. Each graduate candidate is required to receive advising each semester from the department graduate option coordinator before registration. Based on the graduate student's academic background, work experience, and academic goals, the department graduate option coordinator may approve a student's request to substitute a graduate course not listed on the applicable program plan description.

## Learning Outcomes: Electrical Engineering

The Department graduate program offers diverse educational opportunities with its high-standard multidisciplinary curriculum and prepares its students to: Advance their mathematical knowledge and application of electrical engineering;

- Obtain depth of knowledge in specific electrical engineering disciplines;
- Conduct research and develop new ideas for engineering practice;
- Understand methodologies and their applications;
- Enhance their technical writing and oral communication skills

### ECEN 5807 Advanced Digital and Analog Circuits 3 s.h.

Chip circuitry for devices such as BJT, CMOS, and ECL-based digital logic chips. Switching devices such as SCRs, triacs, and timers. Switching power supplies. Power amplifiers. Applications and specifications of off-the-shelf IC devices. Computer-aided design and analysis.

**Prereq.:** ECEN 3772.

### ECEN 5808 Advanced Signals and Systems 3 s.h.

Communication and control system modeling and simulations; signal analysis in continuous-time, discrete-time and frequency domains. Advanced communication system applications.

**Prereq.:** ECEN 3710 and MATH 3705.

### ECEN 5816 Theory and Fabrication of Solid-State Devices 3 s.h.

An introductory study of physical theory, design, and fabrication of discrete devices and integrated circuits. Electronic properties of semiconductors such as carrier concentration, energy gap, mobility, lifetime. Techniques of fabrication such as oxidation, diffusion, alloying ion implantation, metallization, masking.

**Prereq.:** ECEN 3741 and ECEN 3771.

### ECEN 5817 Sensor Design and Application 3 s.h.

Designs and applications for measurement and control; includes electrochemical, -mechanical, -optical, and -thermal transducers. Signal conditioning and smart sensors.

**Prereq.:** ECEN 3771 or ECEN 3717.

### ECEN 5830 Digital Signal Processing 3 s.h.

Discrete time signals and systems; discrete, fast, and inverse Fourier transforms. Digital filter analysis and design, digital signal processing applications. Two hours lecture, three hours laboratory.

**Prereq.:** ECEN 3710.

**ECEN 5835 Computer Architecture with VHDL 4 s.h.**

Use of hardware description languages to design computer components and systems. Arithmetic and logic units, control units, VHDL models for memories and busses, interfacing, transfer design. Survey of modern computer systems.  
**Prereq.:** ECEN 3734.

**ECEN 5840 Electric Power Systems 4 s.h.**

Modeling of power system components. Power flow, faults, protection systems, and stability problems. Special projects and laboratory experiments including CAD applications for analysis, design, and simulation of power system networks. Three hours lecture, three hours laboratory per week.  
**Prereq. or concurrent:** ECEN 4844.

**ECEN 5850 Communications Applications 3 s.h.**

Applicable technologies and "real-world" communication components and systems. Design and analysis tools. Emerging technologies, "killer apps", networking, data acquisition, and convergence.

**Prereq.:** ECEN 3710 or ECEN 5808.

**ECEN 5860 Energy Radiation and Propagation 3 s.h.**

Examination of dipole, loop aperture, reflector, lens, surface wave, traveling wave, and other antennas; array theory; radiation resistance, directivity, and input impedance. Investigation of theoretical and practical applications of fiber optics.

**Prereq.:** ECEN 3742 and 21 s.h. of ECEN courses.

**ECEN 5879 Computer-Aided Design 3 s.h.**

The design, analysis, and modeling of linear and nonlinear networks and systems using a simulation and modeling computer program. Development and use of library models of devices, subcircuits, and subsystems.

**Prereq.:** ECEN 2611 and 21 s.h. of ECEN courses.

**ECEN 5890 Power Electronics 4 s.h.**

SCRs, rectifier circuits, commutation techniques, AC controllers, converters, and inverters. Special projects and laboratory experiments including computer applications for analysis, design, and simulation of power electronics network. Three hours lecture, three hours laboratory per week.

**Prereq.:** ECEN 3771 and 21 s.h. of ECEN courses.

**ECEN 6900 Seminar 1-3 s.h.**

Designed to examine topics in the field. May be repeated once.

**ECEN 6901 Control Systems 1 3 s.h.**

Fundamental concepts in linear system theory. matrix algebra, linear vector spaces, linear operators. Input-output and state-space models for continuous-time systems; canonical forms. Solutions of state space equations. Characteristics of linear systems: stability; controllability and observability. State variable feedback; introduction to state estimation.

**ECEN 6902 Control Systems 2 3 s.h.**

State-variable feedback techniques; design of state estimators. Design using polynomial equations. Design of digital controllers: discrete equivalents and direct methods. Introduction to implementation of digital control systems.

**Prereq.:** ECEN 6901.

**ECEN 6903 Advanced Control Systems 3 s.h.**

Introduction to nonlinear control systems: basic nonlinear phenomena, describing functions, Lyapunov stability, linearization techniques. Introduction to linear optimal quadratic control; stochastic modeling and Kalman filtering.

**Prereq.:** ECEN 6902.

**ECEN 6911 Electromagnetic Fields 1 3 s.h.**

Solution of boundary value problems in general form. Laplace, Poisson, and diffusion and wave equations in orthogonal coordinate systems.

**ECEN 6912 Electromagnetic Fields 2 3 s.h.**

Solution of boundary value problems in general form. Laplace, Poisson, and diffusion and wave equations in orthogonal coordinate systems.

**ECEN 6933 Digital Systems: VHDL Design 3 s.h.**

Local minimization, design of combinational networks; design of synchronous and asynchronous sequential machines; design of digital systems using VHD, modeling combinational and sequential networks, compilation, simulation, and synthesis of VHDL codes.

**ECEN 6934 Digital Systems: Computer Arithmetic 3 s.h.**

Number system representations: standard and unconventional formats. Design of two-operand and multi-operand fast adders. High-speed multiplication and division algorithms. Floating-point numbers, algorithms, and error control. Hardware algorithms for function evaluation.

**Prereq.:** ECEN 6933.

**ECEN 6981 Electric Power System Engineering 3 s.h.**

The formulation of equations to study electric power network problems, including feeders, power flow, short circuits, protection systems, and stability. The study of power system over voltages and transients caused by short circuits, switching, and lightning. The application of numerical techniques to study and design special projects using digital computations.

**ECEN 6983 Modern Power Sources 3 s.h.**

Analytical and descriptive study of modern power plants. Combustion and environmental problems with fossil-fueled power plants. Electromagnetic circuits and devices with emphasis on the principles of electromechanical energy conversions.

**Cross-listed:** CHEN 6983 and MECH 6983.

**ECEN 6985 Electromechanical Motion Devices 3 s.h.**

Thermodynamics of batteries, and of electric and fuel cells. Power from nuclear isotopes. Features common to rotating electromagnetic fields. Analysis and design of electromechanical power components. Logic circuit design with I/O structure and interface.

**Cross-listed:** CHEN 6985 and MECH 6985.

**ECEN 6986 Power Electronics Circuits and Devices 3 s.h.**

The design and analysis of power electronic circuits using solid-state switching devices. Topics include power semiconductor diodes and transistors, diode circuits and controlled rectifiers, thyristors, communication techniques, AC voltage controllers, and switching regulators, with applications.

**ECEN 6987 Power Electronics and Industrial Drives 3 s.h.**

The design and analysis of power electronic circuits and systems, static switches, power supplies, AC and DC drives, and protection of power electronic devices and circuits.

**ECEN 6988 Nano- and Micro-Electro Mechanical Systems 3 s.h.**

NEMS and MEMS fabrications, elastic system structure, membranes and plates, magnetically actuated systems, continuum theory and scaling laws. Microfluidics and nanofluidics devices.

**Prereq.:** Graduate standing.

**ECEN 6990 Thesis 1-6 s.h.**

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## Industrial and Systems Engineering

### Option Coordinator

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### Option Description

The industrial engineering program option provides opportunities for interdisciplinary graduate studies toward the Master of Science in Engineering with specialization in engineering management or industrial/manufacturing systems engineering. Students can also pursue study focused on specialized areas of industrial and systems engineering, such as operations research.

All study plans are interdisciplinary and include some coursework from outside the department. They are designed to serve practicing engineers, as well as those students who want to pursue advanced graduate studies beyond the Master of Science in engineering.

The Master of Science in Engineering may be characterized as being both career-oriented and flexible. Program plans and options are available to accommodate the needs of nearly every engineering graduate student.

Graduate students enrolled in any of the engineering graduate programs must complete:

- 30 semester hours for the thesis plan,
- 33 semester hours for the nonthesis plan, or
- 36 semester hours for the management plan.

The degree requirements consist of core courses, technical courses, and project courses. The management plan also requires a series of business courses. These degree programs are designed to provide graduate students with the knowledge and skills to excel in professional careers and/or pursue a PhD or doctorate degree in engineering. To obtain a list of core and technical course requirements for a particular engineering discipline, students should contact the option coordinator for the program of interest.

## Program Plans

### Thesis Plan

Graduate students choosing the thesis plan are required to complete 30 semester hours of graduate coursework. This generally consists of:

- six to nine semester hours of core courses,
- 15-18 semester hours of technical concentration courses, and
- six semester hours of thesis.

This plan is strongly recommended for all candidates who wish to continue their graduate studies beyond the master's degree. The thesis provides firsthand experience with experimental design, literature searches, research methodology, technical report writing, and oral presentation of results. Additionally, the thesis option can lead the graduate student to a higher level of expertise in the chosen area of specialization.

### Non-thesis Plan

The non-thesis plan is designed for students who wish to enhance their knowledge and skills to succeed in careers as practicing engineers, but are unlikely to pursue a PhD or doctorate degree. A total of 33 semester hours of coursework is required for this plan. In addition to 6-9 semester hours of core courses, every student enrolled in this option is required to complete 21-24 semester hours of technical courses related to their discipline, and a 3-semester-hour graduate project course. A graduate student enrolled in a graduate project course will be required to defend the results of his or her project by giving a presentation to the engineering faculty and students.

### Management Plan

Students who have been in the work arena and are moving into an engineering management role may wish to choose the management plan. A total of 36 semester hours of coursework is required for this plan. This consists of:

- 6-9 semester hours of core courses,
- 9-12 semester hours of business courses,
- 12-18 semester hours of technical courses, and
- a 3-semester-hour graduate project.

A graduate student enrolled in a graduate project course will be required to defend the results of his or her project by giving a presentation to the engineering faculty and students.

## Chemical Engineering Requirements

At the time of initial enrollment, the student will select a program plan (thesis, non-thesis, or management) and technical area of interest (e.g. chemical processes, biochemical, environmental, materials). The degree requirements for each program plan are listed in the general description of the Master of Science in Engineering program. A list of required courses and possible electives for each plan may be obtained from the graduate program's option coordinator.

In cooperation with an assigned faculty advisor, each student will establish a set of academic goals and desired outcomes, and a coursework plan to meet those objectives. Upon completion of the graduate program, all students will complete either a written or an oral assessment of the effectiveness of the program in meeting their established goals and outcomes.

Thesis students who have registered for all required thesis hours and have completed all course requirements but have not finished the thesis are required to maintain current student status if they expect to utilize any University service (e.g., parking, computers, library, advisors' assistance, thesis defense, etc.). This can normally be accomplished by registering for at least one hour of thesis credit.

## Industrial and Systems Engineering Requirements

At the time of initial enrollment, the student will select a program plan (thesis, non-thesis, or management) and technical concentration area (engineering management, industrial/manufacturing systems engineering, operations research, etc.) The requirements for each option are enumerated in the general description of the Master of Science in Engineering program. Lists of required courses and possible electives for each plan may be obtained from the graduate program option coordinator. Every graduate student is responsible for selecting an area of specialization by signing a special form designed for this purpose. A student may change his or her area of concentration or program of study in consultation with his or her advisor.

In cooperation with an assigned faculty advisor, each student will establish a set of academic goals and desired outcomes, and a coursework plan to meet those objectives. Courses taken without the permission of the advisor may not be used to meet the degree requirements.

Thesis students who have registered for all required thesis hours and have completed all course requirements but have not finished the thesis are required to maintain current student status if they expect to utilize any University service (e.g., parking, computers, library, advisors' assistance, thesis defense, etc.). This can normally be accomplished by registering for at least one hour of thesis credit in ISEN 6990 Special Topics.

### ISEN 5801 Operations Research 1 3 s.h.

Formulation and solution of engineering problems using linear programming. Model formulation, the primal, dual, and transportation simplex methods, duality theory, and sensitivity analysis.

**Prereq.:** MATH 2673.

### ISEN 5811L Manufacturing Practices I Laboratory 1 s.h.

Experimental analysis of manufacturing processes. Process control and data acquisition. Experimental design applied to processes including polymer processes, casting, machining, and joining. Three hours laboratory.

**Prereq. or concurrent** ISEN 3723.

### ISEN 5812L Manufacturing Practices 2 Laboratory 1 s.h.

Experimental analysis of advanced manufacturing techniques. Advanced sensing and controlling technologies. Real-time monitoring, metrology, and data acquisition. Numerically controlled (NC) machines and programming. Net-shape and additive manufacturing.

**Prereq. or concurrent** ISEN 5823.

### ISEN 5820 Advanced Quality for Engineers 3 s.h.

Applications and practices of quality control in industry. Engineering and administrative aspects of quality control programs, process control, and acceptance sampling. Application of quantitative methods to the design and evaluation of engineered products, processes, and systems.

**Prereq.:** ISEN 3720.

### ISEN 5823 Automation 3 s.h.

Principles and applications of sensing, actuation and control. Emphasis on hydraulic and pneumatic systems. Industrial process controllers, sensors and machine vision. Design and cost considerations for industrial automation applications.

**Prereq.:** MECH 2641, ECEN 2614 or consent of instructor.

**ISEN 5825 Advanced Engineering Economy 3 s.h.**

An extension of the topics in engineering economy. Analysis of rationale and norm of decision making, risk and uncertainty models, utility theory, measurement of productivity, and advanced project comparison methods.

**Prereq.:** ISEN 3724.

**ISEN 5830 Human Factors Engineering 3 s.h.**

Various aspects of human factors in the design of human-machine systems and environments. Study of human sensory, perceptual, mental, psychomotor, and other characteristics; techniques of measuring human capabilities, limitations, safety, comfort, and productivity.

**Prereq.:** MATH 2673.

**ISEN 5850 Operations Research 2 3 s.h.**

Formulation and solution of industrial engineering problems using operational research models. Topics include queuing models and the specialization of linear models to equipment replacement, project planning, assignment, and transshipment problems.

**Prereq.:** ISEN 5801.

**ISEN 5880 Management of Technology 3 s.h.**

The course discusses major topics in management of technology and innovations. Dynamics of technology innovation, sources of technology innovations, corporate technology strategy, collaboration and intellectual property, structures and process for innovations, idea generation, commercialization of technology and innovations, and market entry.

**Prereq.:** Senior standing or consent of instructor.

**ISEN 5881 Competitive Manufacturing Management 3 s.h.**

Basic principles of manufacturing competitiveness. The role of engineers in promoting competitiveness. Discussion of new technologies used in modern manufacturing management including, continuous improvement, waste elimination, JIT, lean production systems, setup time reduction, equipment maintenance/improvement, total quality management, and supply chain management.

**Prereq.:** ISEN 3723 or consent of instructor.

**ISEN 6901 Optimization Techniques 3 s.h.**

A study of the theory of optimization and its application to problems from several engineering disciplines. The principles will be applied to constrained and unconstrained engineering problems. Algorithms will be developed for solving optimization problems, which can be formulated as linear, nonlinear, integer, or dynamic programming models.

**ISEN 6902 Digital Simulation 3 s.h.**

A study of simulation methods using digital computers, random number generation, Monte Carlo techniques, queuing models, and analysis of simulation output. The student will be provided the opportunity to simulate moderately complex systems on digital computers. Primary emphasis will be on models of technical, scientific, and economic systems.

**ISEN 6905 Applied Statistics for Design, Quality, and Productivity 3 s.h.**

Review of probability and statistics, uncertainty and decision making, statistical inference, and analyzing sources of variation. Risk and reliability, risk assessment, robust and quality design, regression analysis, and analysis of variance. Design of experiments, single-factor and multifactor experiments, design of experiments for product characteristics, process characteristics, and process optimization. General statistical process control, special charts and sampling techniques for control, monitoring, and auditing quality. Economic issues in process/quality control.

**Prereq.:** ISEN 3710 Engineering Statistics or equivalent.

**ISEN 6906 Supply Chain Engineering 3 s.h.**

In an expanding global economy, efficient and responsive supply chains are critical to business success. This course explores key aspects of supply chain engineering with an emphasis on mathematical approaches to supply chain analysis. Topics include demand forecasting, inventory modeling and control, facility location, capacity planning, transportation, warehousing, scheduling, material requirements planning and procurement.

**Prereq.:** ISEN 3710/ISEN 6921 and consent of instructor.

**ISEN 6908 Logistics Engineering and Mgt 3 s.h.**

Study of logistics from a systems engineering perspective. Covers design of systems for supportability and serviceability, the production and effective distribution of systems for customer use, and the sustaining maintenance and support of systems throughout their period of utilization.

**Prereq.:** ISEN 3720, ISEN 5801 or consent of the instructor.

**ISEN 6910 Design and Analysis Experiment 3 s.h.**

For professionals from business and industry, and students. Specific topics will be announced each time the workshop is offered. Credit hours based on frequency and duration of workshop meetings.

**ISEN 6920 Project Management 3 s.h.**

Methods for planning, organizing, scheduling, supporting, and controlling projects. Network techniques, including CPM, PERT, and time-cost trade-off analysis. Techniques for the estimation of time, manpower, and other resource requirements of the projects, including economic and statistical analysis, forecasting, learning curves, and line balancing. Management of time and other resources involved. Case studies and utilization of computer resources for the analysis and presentation of projects.

**Prereq.:** graduate standing in STEM college.

**ISEN 6921 Engineering Statistics 3 s.h.**

Development and application of stochastic models of engineering systems. Elementary probability models applied to decision making under uncertainty. Development and use of theoretical probability distributions for describing stochastic systems. Models for point and confidence interval estimation and models for correlation analysis applied to engineering problems.

**Prereq.:** ISEN 3710 or equivalent.

**ISEN 6930 Microcomputer Models for Deterministic Engineering Systems 3 s.h.**

Microcomputer model development, implementation, evaluation, and application for deterministic engineering systems. Recognition of engineering systems amenable to analysis as deterministic microcomputer models. Determination of model structure, identification of model parameters, verification of model validity, exercising the model, and interpretation of results.

**ISEN 6935 Decision Analysis for Engineering 3 s.h.**

Review of probability and statistics, subjective probability, probability models, using data, Monte Carlo simulation, and value of information. Introduction to decision analysis, elements of decision problems, structuring decisions, making choices, creativity, and decision making. Risk attitudes, utility axioms, paradoxes, and conflicting objectives.

**Prereq.:** ISEN 3710 Engineering Statistics or equivalent, or permission of instructor.

**ISEN 6970 Advanced Manufacturing Processes 1 3 s.h.**

Advanced manufacturing processes for metallic materials. Included are continuous casting, powder techniques, fluidized bed reactors, and directional solidification.

**ISEN 6971 Advanced Manufacturing Processes 2 3 s.h.**

Advanced manufacturing processes for nonmetallic materials. Included are sintering, slip casting, plastic forming techniques, and extrusion of nonplastic materials.

**ISEN 6990 Special Topics 3 s.h.**

Special topics in industrial/manufacturing systems engineering covering areas not otherwise available. Topics are selected by the faculty from fields of current research interest or special emphasis and may vary from semester to semester. May be repeated for a maximum of six semester hours.

**ISEN 6992 Graduate Projects 3 s.h.**

Analysis, design, research, or other independent investigation on projects selected with the advice and approval of the student's graduate committee.

**Prereq.:** Permission of instructor.

**ISEN 6999 Thesis 1-6 s.h.**

Hours arranged. May be repeated.



# Mechanical Engineering

## Option Coordinator

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vcsolomon@ysu.edu

## Option Description

The program option in mechanical engineering offers the Master of Science in Engineering with specialization within the general mechanical engineering disciplines. Specializations are available in the areas of mechanical analysis/design and fluid thermal systems. The thesis and non-thesis plans are for students who seek to deepen their theoretical knowledge and strengthen their ability to solve more advanced engineering problems, while the management plan is for those who wish to include managerial training in their program of preparation.

The Department of Mechanical Engineering has excellent computer and laboratory facilities that provide for the following design and research capabilities: solid modeling, FEA in stress analysis, structural dynamics and heat transfer, experimental stress analysis, vibrations and noise control, computational and experimental heat transfer and fluid dynamics, and advanced machine design.

The Master of Science in Engineering may be characterized as being both career-oriented and flexible. Program plans and options are available to accommodate the needs of nearly every engineering graduate student. Graduate students enrolled in any of the engineering graduate programs must complete:

- 30 semester hours for the thesis plan,
- 33 semester hours for the nonthesis plan, or
- 36 semester hours for the management plan.

The degree requirements consist of core courses, technical courses, and project courses. The management plan also requires a series of business courses. These degree programs are designed to provide graduate students with the knowledge and skills to excel in professional careers and/or pursue a PhD or doctorate degree in engineering. To obtain a list of core and technical course requirements for a particular engineering discipline, students should contact the option coordinator for the program of interest.

## Program Plans

### Thesis Plan

Graduate students choosing the thesis plan are required to complete 30 semester hours of graduate coursework. This generally consists of:

- six to nine semester hours of core courses,
- 15-18 semester hours of technical concentration courses, and
- six semester hours of thesis.

This plan is strongly recommended for all candidates who wish to continue their graduate studies beyond the master's degree. The thesis provides firsthand experience with experimental design, literature searches, research methodology, technical report writing, and oral presentation of results. Additionally, the thesis option can lead the graduate student to a higher level of expertise in the chosen area of specialization.

### Non-thesis Plan

The non-thesis plan is designed for students who wish to enhance their knowledge and skills to succeed in careers as practicing engineers, but are unlikely to pursue a PhD or doctorate degree. A total of 33 semester hours of coursework is required for this plan. In addition to 6-9 semester hours of core courses, every student enrolled in this option is required to complete

21-24 semester hours of technical courses related to their discipline, and a 3-semester-hour graduate project course. A graduate student enrolled in a graduate project course will be required to defend the results of his or her project by giving a presentation to the engineering faculty and students.

## Management Plan

Students who have been in the work arena and are moving into an engineering management role may wish to choose the management plan. A total of 36 semester hours of coursework is required for this plan. This consists of:

- 6-9 semester hours of core courses,
- 9-12 semester hours of business courses,
- 12-18 semester hours of technical courses, and
- a 3-semester-hour graduate project.

A graduate student enrolled in a graduate project course will be required to defend the results of his or her project by giving a presentation to the engineering faculty and students.

## Mechanical Engineering Requirements

At the time of initial enrollment, the student will select a program plan (thesis, non-thesis, or management) and technical concentration area (mechanical analysis/design of rigid and deformable bodies, analysis/design of thermal-fluid systems, etc.). The requirements for each option are listed in the general description of the Master of Science in Engineering program. Lists of required courses and possible electives for each plan may be obtained from the graduate program option coordinator. In cooperation with an assigned faculty adviser, each student will establish a set of academic goals and desired outcomes, and a coursework plan to meet those objectives.

Thesis students who have registered for all required thesis hours and have completed all course requirements but have not finished the thesis are required to maintain current student status if they expect to utilize any University service (e.g. parking, computers, library, advisors' assistance, thesis defense, etc.). This can normally be accomplished by registering for at least one hour of thesis credit in MECH 6990 Thesis.

### MECH 5811 Solar Engineering 3 s.h.

Radiational characteristics of solar energy, glass materials and selective coatings. Analysis of flat plate collectors, concentrators, and thermal storage. System simulation and economic analysis for optimization of basic solar systems.

**Prereq.:** PHYS 2611, MECH 3725 or consent of chairperson.

### MECH 5825 Heat Transfer 2 3 s.h.

Advanced topics in heat transfer. Multi-dimensional conduction, free convection, phase change heat transfer and thermal radiation. Integration of analytical, numerical, and computational methods into design projects.

**Prereq.:** MECH 3708 and MECH 3725.

### MECH 5836 Fluid Power and Control 3 s.h.

Theory of prime movers, turbomachinery, and control systems. Modeling of hydraulic and pneumatic systems and components. Hydraulic fluids, pumps, cylinders, valves, motors, compressors, and actuators. Hydraulic and pneumatic circuit applications and control.

**Prereq.:** MECH 3725.

### MECH 5842 Kinetics of Machines 3 s.h.

Three dimensional kinematics and dynamics of machines. Dynamic analysis and design; balancing of machines.

**Prereq.:** MECH 3742.

### MECH 5852 Stress and Strain Analysis 2 3 s.h.

Continuation of MECH 3751. Introduction to applied elasticity theory including plane stress and strain and stress functions. Plastic and creep behavior of materials. Introduction to instability. Emphasis on design applications.

**Prereq.:** MECH 3751, MECH 3751L, MATH 3705.

**MECH 5872 Engineering Acoustics 3 s.h.**

The nature of sound and its propagation; analysis and control of sound and noise production in mechanical equipment; transmission and absorption of sound in engineering materials, ultrasonics, structural acoustics, base measurements, and equipment.

**Prereq.:** MECH 3708.

**MECH 5881 Mechanical Vibrations 3 s.h.**

Introduction to mechanical vibrations: single and multi-degree of freedom systems, free and forced vibrations, impedance and modal analysis including applications.

**Prereq.:** MECH 3708.

**MECH 5881L Mechanical Vibrations Laboratory 1 s.h.**

Introduction to vibrations measurements. Experiments with mechanical systems, computer simulation of vibration systems. Experimental determination of component models and parameters. Three hours laboratory per week.

**Prereq.:** MECH 5881.

**MECH 5884 Finite Element Analysis 3 s.h.**

Fundamental principles of finite element analysis with emphasis on applications to design in areas of stress analysis, vibrations, and heat transfer. Use of commercial software.

**Prereq.:** MECH 3708, MECH 3725, MECH 3751.

**MECH 5885 Computational Fluid Dynamics 3 s.h.**

Applied numerical analysis, including solution of linear algebraic equations and ordinary and partial differential equations; modeling of physical processes, including fluid flow and heat and mass transfer; use of general purpose computer codes, including commercial computational fluid dynamics software packages.

**Prereq.:** MECH 3720 and MECH 3725.

**MECH 5892 Control of Mechanical Systems 3 s.h.**

Introduction to theory of feedback and control. Performance and stability of linear systems. Design of feedback control systems. Practical application and introduction to state-space methods. Two hours lecture and three hours laboratory per week.

**Prereq.:** MECH 3708.

**MECH 6900 Special Topics 2-4 s.h.**

Special topics and new developments in mechanical engineering. Subject matter and credit hours to be announced in advance of each offering. May be taken three times.

**Prereq.:** As announced or permission of instructor.

**MECH 6904 Advanced Thermodynamics 3 s.h.**

Laws of equilibrium thermodynamics; relations between properties and aspects of the Second Law. Exergy analysis. Macroscopic and microscopic considerations for the prediction of properties. Microscopic description based on classical and quantum statistics. General stability criteria, statistical equilibrium, and trend toward equilibrium fluctuations.

**Prereq.:** Permission of graduate advisor.

**MECH 6915 Failure Analysis 3 s.h.**

Advanced methods in failure analysis of metallics, ceramics, polymers, and composites. Numerous practical examples will be discussed. Individual student projects using scanning electron microscopy are required. Three hours lecture and three hours laboratory.

**MECH 6925 Computational Heat Transfer 3 s.h.**

Numerical modeling techniques and methods in heat transfer. Computational analysis of conduction and convection by the finite element method, finite difference method, and the method of coordinate transformation.

**Prereq.:** MATH 3705 Differential Equations and MECH 3725 Heat Transfer I, or permission of instructor.

**MECH 6930 Advanced Fluid Mechanics and Heat Transfer 3 s.h.**

Viscous and inviscid flows, Navier-Stokes equations, Euler equations, and complex variables methods. Analytic solutions to advanced heat transfer problems, advanced boundary-value problems.

**Prereq.:** MECH 3725 Heat Transfer I or equivalent.

**MECH 6945 Advanced Dynamics 3 s.h.**

Three-dimensional vector statics; kinematics and kinetics of particles and rigid bodies; energy, momentum, and stability. LaGrange's equations of motion for particles and rigid bodies impulse; small oscillations; nonholonomic and dissipative systems.

**Prereq.:** Permission of graduate advisor.

**MECH 6952 Applied Elasticity 3 s.h.**

Equations of equilibrium, compatibility and boundary conditions-their applications to plane stress and plane strain problems. Stress functions, strain energy methods, stress distribution in anisotropic bodies; special problems in structures involving torsion and bending of prismatical bars.

**Prereq.:** MECH 3751 Stress and Strain Analysis I or equivalent, or permission of graduate advisor.

**MECH 6962 Mechanical Design Analysis 3 s.h.**

The study of analytical aspects and the application of engineering science topics to machine elements and machinery. Some case studies in mechanical design.

**Prereq.:** Permission of graduate advisor.

**MECH 6963 Advanced Stress Analysis 3 s.h.**

Theory and engineering applications of the most recent techniques of experimental stress analysis, brittle coatings, photoelasticity, strain gauges, photostress.

**Prereq.:** MECH 3751 Stress and Strain Analysis I or equivalent or permission of graduate advisor.

**MECH 6983 Modern Power Sources 3 s.h.**

Analytical and descriptive study of modern power plants. Combustion and environmental problems with fossil-fueled power plants. Electromagnetic circuits and devices with emphasis on the principles of electromechanical energy conversions. Cross-listed as CHEN 6983 and ECEN 6983.

**Prereq.:** Permission of graduate advisor.

**MECH 6985 Electromechanical Motion Devices 3 s.h.**

Thermodynamics of batteries, and electric and fuel cells. Power from nuclear isotopes. Features common to rotating electromagnetic fields. Analysis and design of electromechanical power components. Logical circuit design with I/O structure and interface. Cross-listed as CHEN 6985 and ECEN 6985.

**MECH 6990 Thesis 2-6 s.h.**

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**MECH 6991 Thesis 2-6 s.h.**

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**MECH 6992 Graduate Projects 3 s.h.**

Analysis, design, research, or other independent investigation on projects selected with the advice and approval of the student's graduate committee.

## Master of Science in Nursing Clinical Options

- Adult-Gerontology Acute Care Nurse Practitioner
- Family Nurse Practitioner (FNP)
- Nurse Anesthetist
- Nurse Education

## Post-master's Certificates

- Adult-Gerontology Acute Care Nurse Practitioner
- Family Nurse Practitioner (FNP)
- Nurse Education

## Post-Baccalaureate School Nurse Licensure

- School Nurse

## MSN Program Director

Dr. Valerie O'Dell  
3132 Cushwa Hall  
(330) 941-2177  
vmodell@ysu.edu

## Program Description

The Master of Science in Nursing program is designed for baccalaureate-prepared nurses who have strong undergraduate foundations in critical thinking, decision-making, and nursing practice. The program consists of four program options, with specialization in Family Nurse Practitioner, Nursing Education, and Nurse Anesthesia and three post-master's certificates in Adult-Gerontology Acute Care Nurse Practitioner, Family Nurse Practitioner and Nurse Education. The department also offers a non-degree School Nurse certificate.

The core curriculum centers on professional nursing issues, nursing science, and research methods for building nursing knowledge. The Family Nurse Practitioner option focuses on the delivery of primary care to families and persons of all ages within the health care delivery system. The Adult-Gerontology Acute Care Nurse Practitioner option focuses on providing direct acute care to adult and older adult individuals and families. The Nursing Education option focuses on delivery of nursing and patient education to individuals in academic, health-care delivery and community settings. The Nurse Anesthetist option focuses on the administration of anesthesia to individuals requiring surgical and non-surgical diagnostic procedures. The non-degree School Nurse certificate focuses on delivery of comprehensive care to individuals in the school environment.

The Master of Science in Nursing program is fully accredited by the Accreditation Commission for Education in Nursing (ACEN). For additional information regarding accreditation, contact ACEN:

ACEN  
3343 Peachtree Road NE  
Suite 850  
Atlanta, GA 30326  
Phone: (404) 975-5000

In addition, the nurse anesthetist option is fully accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs (COA).

The Master of Science in Nursing in nurse anesthesia is a cooperative program between Youngstown State University and St. Elizabeth Health Center School for Nurse Anesthetists, Inc. All courses are taught by YSU graduate faculty. Mercy Health supports the program by providing clinical and other resources at St. Elizabeth Youngstown Hospital, St. Elizabeth Boardman Hospital and St. Joseph Warren Hospital. Pediatric clinical experiences are provided at Akron Children's Hospital. Students gain experience in the use of many anesthetic agents and techniques and are supervised by Certified Registered Nurse Anesthetists (CRNAs) and Staff Anesthesiologists from Bel-Park Anesthesia Associates, Inc. Upon successful completion of the degree program, graduates are eligible to sit for the National Certification Exam by the Council on Certification of Nurse Anesthetists. Once certified, CRNAs must apply for a Certificate of Authority to practice as an Advanced Practice Nurse in the State of Ohio or abide by the laws of the state in which they intend to practice.

Acceptance into the YSU Master of Science in Nursing program is contingent upon acceptance into the St. Elizabeth Health Center School for Nurse Anesthetists, Inc. For additional admission information specific to the Nurse Anesthetist option please contact Dr. Beverly A. Rodgers:

Dr. Beverly A. Rodgers, DNAP, CRNA  
Program Director  
St. Elizabeth Health Center School for Nurse Anesthetists, Inc.  
(330) 480-3444

brodgers@belpark.net

## Admission Requirements

All nursing applicants must meet the following requirements:

- Regular admission requires a cumulative undergraduate grade point average of at least 3.0 (on a 4.0 scale)
- Satisfactory completion of undergraduate courses in health assessment, statistics, and research methods
- Hold a B.S.N. degree from an accredited program
- Current Ohio Registered Nurse license and minimum of one year professional work experience
- Current CPR certification, current immunizations, drug screening, and criminal background checks are to be maintained while in the program.
- All nurse anesthetist applicants must submit an official report of Graduate Record Examination (General Test) scores completed within the past five years.
- Applicants with a cumulative grade point average of less than 3.0 (on a 4.0 scale) must submit an official report of Graduate Record Examination (General Test) scores completed within the past five years.
- Successful/satisfactory interview is required for all MSN nursing applicants meeting minimum requirements.
- Students not meeting regular admission requirements may be provisionally admitted. See the *Graduate Catalog* under Provisional Admission.

Applicants must submit the following items to Graduate Admissions in Coffelt Hall:

- Official transcripts from each college or institution of higher learning attended (other than YSU)
- Three satisfactory Recommendation Reference Forms: one each from a faculty member, an employer, and a colleague
- Letter of intent (300 words maximum) stating one's professional career goals and how graduate education in nursing will help fulfill said goals
- Resume or curriculum vita (including education, work and/or research experience, publications, certifications, licenses, grants, professional affiliations, awards, honors, presentations, and/or courses taught)

Application deadline for Family Nurse Practitioner (FNP) option is February 1. The FNP option is a cohort-based program (beginning each Fall).

## Graduate Faculty

**Kimberly A. Ballone**, D.N.P., Professor  
Pediatric issues; children and families; simulation in nursing education; motivating nursing students; preceptorships

**Patricia L. Hoyson**, Ph.D., Professor  
Diabetes; critical thinking; patient education; nursing education

**Susan A. Lisko**, D.N.P., Associate Professor  
Critical thinking; nursing simulation; medical-surgical nursing

**Valerie Marie O'Dell**, D.N.P., Associate Professor  
Maternal-child nursing; simulation scenario development; nursing education

**Pamela A. Schuster**, Ph.D., Professor  
Clinical nursing research; research in nursing education

**Cynthia M. Shields**, D.N.P., Clinical Associate Professor  
Critical care nursing; nurse practitioner education and practice

**Nancy Wagner**, D.N.P., Professor, Chair  
Pediatrics; educational research/simulation; transcultural

**Amy Weaver**, Ph.D., Associate Professor

Geriatric education; geriatrics; simulation

## Graduate Courses

### **NURS 6900 Professional Issues in Nursing 3 s.h.**

Exploration of nursing issues including changing roles and scope of practice and discipline concerns, with emphasis of interdisciplinary collaboration and social, cultural, political, economic, legal, regulatory, and ethical practice considerations.

### **NURS 6901 Nursing Science and Research 1 3 s.h.**

Analysis of health-related evidence for practice. Exploration of the significance of theory, research, and research methods and strategies for translating evidence into practice.

**Prereq. or concurrent:** NURS 6906.

### **NURS 6902 Advanced Pathophysiology 3 s.h.**

Normal physiologic functions and pathologic mechanisms are examined to prepare nurses for advanced practice roles.

### **NURS 6903 Advanced Pharmacology 3 s.h.**

Application of pharmacological concepts in clinical settings with examination of major categories of pharmacological agents.

**Prereq.:** NURS 6902.

### **NURS 6904 Advanced Health Assessment 3 s.h.**

Development of advanced clinical knowledge and skills needed for comprehensive health assessment across the life span. Emphasis on health history, physical, cultural, developmental and nutritional assessments with differential diagnosis of common health problems.

**Prereq.:** NURS 6902 (or concurrent).

### **NURS 6905 Advanced Health Assessment Practicum 5 s.h.**

Application of advanced nursing knowledge and skills from NURS 6904 focusing on the assessment of adult and geriatric populations. To be taken concurrently with NURS 6904.

**Prereq.:** NURS 6902 and NURS 6998.

### **NURS 6906 Advanced Statistics 3 s.h.**

Advanced inferential and multivariate statistical techniques used in nursing and other health professions, with emphasis on PASW computer analysis for interpretation of nursing and health data.

**Prereq.:** An undergraduate statistics course or equivalent.

### **NURS 6907 Health Assessment of School Children 3 s.h.**

Development of advanced clinical knowledge and skills in assessment of school children. Emphasis on research from nursing, biological, behavioral, and social sciences.

**Prereq.:** NURS 6901, NURS 6902, and NURS 6903, or enrollment in school nurse licensure program.

### **NURS 6908 Health Assessment of School Children Practicum 2 s.h.**

Application of advanced nursing knowledge and skills from NURS 6907, focusing on assessment of children in school settings.

**Concurrent:** NURS 6907.

### **NURS 6910 Professional Aspects of Nurse Anesthesia 3 s.h.**

Ethics, legal aspects, and professional issues associated with a career in nurse anesthesia. Includes a history of anesthesia and the role of certified registered nurse anesthetists (CRNA).

**Prereq.:** Acceptance into nurse anesthesia option.

### **NURS 6911 Pharmacology 1 for Nurse Anesthetists 3 s.h.**

Basic principles of pharmacology including drug effectiveness, mechanism of action, and drug interactions. Emphasis on pharmacological action of drugs on specific organ systems and use in treatment of disease conditions.

**Prereq.:** Acceptance into nurse anesthesia option.

### **NURS 6912 Pharmacology 2 for Nurse Anesthetists 3 s.h.**

Comprehensive study of drugs and adjunctive agents used in anesthesia practice. Includes a review of inhalation and intravenous anesthetics, local anesthetics, neuromuscular blocking agents, and adjunctive drugs.

**Prereq.:** NURS 6911.

### **NURS 6913 Medical Chemistry and Physics for Nurse Anesthetists 3 s.h.**

Application of organic chemistry, biochemistry, and medical physics in the practice of anesthesia.

**Prereq.:** Acceptance into nurse anesthesia option.

### **NURS 6914 Human Anatomy, Physiology, and Pathophysiology 1 for Nurse Anesthetists 3 s.h.**

Study of the structure and function of the human body.

**Prereq.:** Acceptance into nurse anesthesia option.

### **NURS 6916 Anesthesia Principles 1 2 s.h.**

Introduction to anesthesia practice and techniques, including preoperative assessments, anesthesia drugs, care plan development and implementation, and safety issues.

**Prereq.:** Acceptance into nurse anesthesia option.

### **NURS 6920 Special Topics 1-4 s.h.**

Topics may vary from semester to semester and will be announced along with prerequisites and hours. May be repeated. S/U grading.

### **NURS 6998 Anatomy and Physiology of Aging 3 s.h.**

Using a systems approach, this course will examine the anatomical and physiological changes that occur with aging. It will discuss age-related disorders and evaluate the impact of these changes on activities and daily function. This course will be cross-listed with GERO 6998.

### **NURS 7000 Adult and Gerontology Care 3 s.h.**

Advanced nursing management of adult and geriatric health care needs. Taken concurrently with NURS 7001.

**Prereq.:** NURS 6904, NURS 6905, and NURS 6998.

### **NURS 7001 Adult-Gerontology Care Practicum 5 s.h.**

Application of knowledge and skills from NURS 7000 focusing on advanced nursing management of adult and geriatric health care needs.

**Prereq.:** NURS 6904, NURS 6905, and NURS 6998.

**Concurrent with:** NURS 7000.

### **NURS 7002 Nursing Science and Research 2 2 s.h.**

Continuation of NURS 6901, focusing on design, instrumentation, data collection methods, data analysis and data interpretation.

**Prereq.:** NURS 6901 and NURS 6906.

### **NURS 7003 Role Development 3 s.h.**

The examination of concepts, theories, and research related to advanced practice role development, teaching, learning, technology, evaluation strategies, leadership, program development, marketing skills, and health care delivery in community settings.

**Prereq.:** NURS 7000, NURS 7001 and NURS 7002.

### **NURS 7004 Role Development Practicum 5 s.h.**

Application of concepts, theories, and research from NURS 7003 in a variety of nursing education, health care, and community settings.

**Prereq.:** NURS 7000, NURS 7001, NURS 7002, NURS 7003, or concurrent with NURS 7003.

### **NURS 7005 Capstone Practicum 2 s.h.**

Synthesis of learned concepts and theories in the form of an individual scholarly project, and dissemination of findings under the direction of a graduate faculty member.

**Prereq.:** Completion of all coursework and approval of MSN faculty committee.

### **NURS 7006 Special Topics in Nursing 1-5 s.h.**

Special interest nursing topics selected by the faculty which reflect current trends and issues in nursing practice. May be repeated as desired.

### **NURS 7008 Schools and Health 3 s.h.**

Population focus survey of children's health issues and K-12 schools using CDC Coordinated School Health Program model as an organizing framework. Topics include school health policy, relationship of health and academic outcomes, and Youth Risk Behavioral Surveillance (YRBSS). Current research infused into the course.

**Prereq.:** Enrollment in school nurse licensure program.

**Cross-listed:** MPH 7008.

**NURS 7010 Human Anatomy, Physiology, and Pathophysiology 2 for Nurse Anesthetists 3 s.h.**

NURS 6914 Continuation of Anatomy, Physiology, and Pathophysiology I with further emphasis on cardiovascular, respiratory, renal, hepatic, and endocrine systems.

**Prereq.:** NURS 6914.

**NURS 7011 Anesthesia Principles 2 6 s.h.**

Examines specific anesthetic techniques used in a variety of surgical procedures.

**Prereq.:** NURS 6916.

**NURS 7012 Anesthesia Principles 3 8 s.h.**

Administration of anesthesia for high-risk patients.

**Prereq.:** NURS 7011.

**NURS 7014 Health Management in Schools 3 s.h.**

Advanced nursing management of health care needs of children in schools, pre-K through high school.

**Prereq.:** NURS 6907 or enrollment in school nurse licensure program.

**NURS 7015 Health Management in Schools Practicum 2 s.h.**

Application of knowledge and skills from NURS 7014, focusing on advanced nursing management of health care needs of children in schools, pre-K through high school. To be taken concurrently with NURS 7014.

**Prereq.:** NURS 6907.

**NURS 7016 School Nurse Role 3 s.h.**

Examination of concepts, theories, and research related to advanced practice role development, teaching, learning, technology, evaluation strategies, leadership, marketing skills, and health care delivery in school settings.

**Prereq.:** NURS 7014, NURS 7015 or enrollment in the school nurse licensure program.

**NURS 7017 School Nurse Role Practicum 1-5 s.h.**

Application of concepts, theories, and research from NURS 7016 in pre-K and K-12 school settings to be taken concurrently with NURS 7016.

**Prereq.:** NURS 7014, NURS 7015 or enrollment in school nurse licensure program.

**NURS 7018 Nursing Curriculum Design 3 s.h.**

Foundations of nursing curriculum with designs, development of frameworks, and identification of learning strategies to achieve nursing education learning competencies and outcomes.

**NURS 7019 Nursing Instructional Methods 3 s.h.**

Theoretical foundations and analysis of teaching strategies in academic and clinical settings promoting critical thinking, assessment techniques, and learning outcomes in a variety of nursing education and healthcare settings.

**Prereq.:** NURS 7018.

**NURS 7020 Evaluation in Nursing Education 3 s.h.**

Methods, frameworks, basic principles, and strategies for nursing educational evaluation, including assessment, designs, curriculum and program evaluation tools, agency accreditation processes, legal and ethical guidelines, and measurement tools of scoring and grading.

**Prereq.:** NURS 7018, NURS 7019.

**NURS 7021 Nurse Educator Role 4 s.h.**

Examination of concepts, theories and research related to advanced practice role development, teaching, learning, technology, evaluation strategies, leadership, marketing skills, and nursing education practice in academic and health care delivery settings.

**Prereq.:** NURS 7018, NURS 7019, and NURS 7020.

**NURS 7022 Nurse Educator Role Practicum 3-5 s.h.**

Field experience and application of concepts, theories, research findings, teaching strategies, learning, technology, evaluation strategies, leadership, and marketing skills from NURS 7018, NURS 7019, and NURS 7020 in a variety of nursing education and healthcare settings. This practicum will consist of 150 hours.

**Prereq.:** NURS 7018, NURS 7019, and NURS 7020 or concurrent with NURS 7021.

**NURS 7024 Family and Women's Health 3 s.h.**

Primary health care management of family and women in diverse settings. Emphasizes health promotion, illness prevention, disease detection, and identification and management of health problems and concerns affecting families and women throughout the lifespan. Taken concurrently with NURS 7025.

**Prereq.:** NURS 6903 (or concurrent), NURS 6902, NURS 6904.

**NURS 7025 Family and Women's Health Practicum 4 s.h.**

Application of concepts, theories and research from NURS 7024 in a variety of health care settings. Taken concurrently with NURS 7024.

**Prereq.:** NURS 6903 (or concurrent), NURS 6902, NURS 6904.

**NURS 7026 Infant, Child and Adolescent Health 3 s.h.**

Primary health care management of infants, children and adolescents in diverse settings. Emphasis on health promotion, illness prevention, disease detection, and identification and management of health problems and concerns from infancy through adolescence. Taken concurrently with NURS 7027.

**Prereq.:** NURS 6902, NURS 6903, NURS 6904.

**NURS 7027 Infant, Child and Adolescent Health Practicum 5 s.h.**

Application of concepts, theories and research from NURS 7026 in a variety of health care settings. Taken concurrently with NURS 7026.

**Prereq.:** NURS 6902, NURS 6903, NURS 6904.

**NURS 7028 Adult and Older Adult Health 3 s.h.**

Primary health care management of young adults, adults, and older adults in diverse settings. Emphasizes health promotion, illness prevention, disease detection, and identification and management of health problems and concerns affecting young adults, adults, and older adults. Taken concurrently with NURS 7029.

**Prereq.:** NURS 6902, NURS 6903, and NURS 6904.

**NURS 7029 Adult and Older Adult Health Practicum 5 s.h.**

Application of concepts, theories and research from NURS 7028 in a variety of health care settings. Taken concurrently with NURS 7028.

**Prereq.:** NURS 6902, NURS 6903, NURS 6904.

**NURS 7037 Adult-Gero Acute Care 1 3 s.h.**

Health promotion, health protection and disease prevention and treatment of the acute, critical, and chronically ill or injured adult-geriatric patient population and their families. Content will focus on assessment, diagnosis, management and treatment options relevant to patients with acute and chronic illnesses or injuries in young adults, adults and older adults. Taken concurrently with NURS 7038.

**Prereq.:** NURS 6902, NURS 6903 (or concurrent), NURS 6904.

**NURS 7038 Adult-Gero Acute Care 1 Practicum 4-5 s.h.**

Application of concepts, theories, and research from NURS 7037 in the acute care settings. Taken concurrently with NURS 7037.

**Prereq.:** NURS 6902, NURS 6903 (or concurrent), NURS 6904.

**NURS 7039 Adult-Gero Acute Care 2 3 s.h.**

Health promotion, health protection and disease prevention and treatment of the acute, critical, and chronically ill or injured adult-geriatric patient population and their families. Examining diagnosing and managing issues related to the care of the acutely ill or injured adult-gerontology population. Examine the pathophysiologic as well as the psychosocial influences underlying acute illness and injury. Taken concurrently with NURS 7040.

**Prereq.:** NURS 7037 and NURS 7038.

**NURS 7040 Adult-Gero Acute Care 2 Practicum 4-6 s.h.**

Application of concepts, theories, and research from NURS 7039 in the acute care settings. Taken concurrently with NURS 7039.

**Prereq.:** NURS 6902, NURS 6903 (or concurrent), NURS 6904.

**NURS 7041 Adult-Gero Acute Care 3 3 s.h.**

Health promotion, health protection and disease prevention and treatment of the acute, critical, and chronically ill or injured adult-geriatric patient population and their families. Examining diagnosing and managing issues related to the physiologic and psychosocial aspects of the acutely ill or injured adult-gerontology population commonly seen in the trauma, emergency, and disaster settings. Taken concurrently with NURS 7042.

**Prereq.:** NURS 7039 and NURS 7040.

**NURS 7042 Adult-Gero Acute Care 3 Practicum 4-6 s.h.**

Application of concepts, theories, and research from NURS 7041 in the acute care settings. Taken concurrently with NURS 7041.

**Prereq.:** NURS 6902, NURS 6903 (or concurrent), NURS 6904.

## Adult-Gerontology Acute Care Nurse Practitioner

The areas of coursework in the M.S.N. program include core courses (16 semester hours), and one of the following options:

- Adult-Gerontology Acute Care Nurse Practitioner (51 semester hours)

The breakdown of these course requirements is as follows:

### Adult-Gerontology Acute Care Nurse Practitioner

COURSE	TITLE	S.H.
NURS 6904	Advanced Health Assessment	3
NURS 6902	Advanced Pathophysiology	3
NURS 6903	Advanced Pharmacology	3
NURS 6906	Advanced Statistics	3
NURS 6901	Nursing Science and Research 1	3
NURS 7002	Nursing Science and Research 2	2
NURS 6900	Professional Issues in Nursing	3
NURS 7003	Role Development	3
NURS 7004	Role Development Practicum	5
NURS 7005	Capstone Practicum	2
Adult Gero Acute Care Option Courses		
NURS 7037	Adult-Gero Acute Care 1	3
NURS 7038	Adult-Gero Acute Care 1 Practicum	4
NURS 7039	Adult-Gero Acute Care 2	3
NURS 7040	Adult-Gero Acute Care 2 Practicum	4
NURS 7041	Adult-Gero Acute Care 3	3
NURS 7042	Adult-Gero Acute Care 3 Practicum	4
<b>Total Semester Hours</b>		<b>51</b>

## MSN Student Learning Outcomes

All graduates of the program are prepared to:

- Synthesize theory and research from nursing and related disciplines for advanced nursing roles.
- Utilize leadership strategies to influence health and health care and to promote the nursing profession in the advanced nursing role.
- Expand the knowledge of evidence-based practice by identifying nursing research problems and contributing to research investigations.
- Integrate assessment of own learning in developing a lifelong pattern of scholarly inquiry.

Upon successful completion of the MSN program, graduates are eligible to sit for national certification examinations. Once certified, graduates must apply

for a Certificate of Authority to practice as an Advanced Practice Nurse in the State of Ohio or in the state in which they intend to practice.

## Family Nurse Practitioner

The areas of coursework in the M.S.N. program include core courses (16 semester hours), and one of the following options:

- Family Nurse Practitioner option (37 semester hours)

The breakdown of these course requirements is as follows:

COURSE	TITLE	S.H.
NURS 6900	Professional Issues in Nursing	3
NURS 6901	Nursing Science and Research 1	3
NURS 6902	Advanced Pathophysiology	3
NURS 6906	Advanced Statistics	3
NURS 7002	Nursing Science and Research 2	2
NURS 7005	Capstone Practicum	2
Family Nurse Practitioner (FNP) Option Courses		
NURS 6903	Advanced Pharmacology	3
NURS 6904	Advanced Health Assessment	3
NURS 7003	Role Development	3
NURS 7004	Role Development Practicum	5
NURS 7024	Family and Women's Health	3
NURS 7025	Family and Women's Health Practicum	4
NURS 7026	Infant, Child and Adolescent Health	3
NURS 7027	Infant, Child and Adolescent Health Practicum	5
NURS 7028	Adult and Older Adult Health	3
NURS 7029	Adult and Older Adult Health Practicum	5
<b>Total Semester Hours</b>		<b>53</b>

## MSN Student Learning Outcomes

All graduates of the program are prepared to:

- Synthesize theory and research from nursing and related disciplines for advanced nursing roles.
- Utilize leadership strategies to influence health and health care and to promote the nursing profession in the advanced nursing role.
- Expand the knowledge of evidence-based practice by identifying nursing research problems and contributing to research investigations.
- Integrate assessment of own learning in developing a lifelong pattern of scholarly inquiry.

Upon successful completion of the MSN program, graduates are eligible to sit for national certification examinations. Once certified, graduates must apply for a Certificate of Authority to practice as an Advanced Practice Nurse in the State of Ohio or in the state in which they intend to practice.

Graduates of the Family Nurse Practitioner option are prepared to:

- provide primary care to families and persons of all ages within the health care delivery system
- incorporate a variety of theories from nursing and related fields into the nurse practitioner role
- analyze social issues related to the health care delivery system and advanced nursing practice

## Nurse Anesthetist

The areas of coursework in the M.S.N. program include core courses (16 semester hours), and one of the following options:

- Nurse Anesthetist option (34 semester hours)

The breakdown of these course requirements is as follows:

The total semester hours required for the nurse anesthetist option are greater than the usual hour requirements for other master's programs at YSU. The increased number of hours is necessary in order to meet the COA requirements for a nurse anesthesia program.

COURSE	TITLE	S.H.
NURS 6900	Professional Issues in Nursing	3
NURS 6901	Nursing Science and Research 1	3
NURS 6902	Advanced Pathophysiology	3
NURS 6906	Advanced Statistics	3
NURS 7002	Nursing Science and Research 2	2
NURS 7005	Capstone Practicum	2
Nurse Anesthetist Option Courses		
NURS 6910	Professional Aspects of Nurse Anesthesia	3
NURS 6911	Pharmacology 1 for Nurse Anesthetists	3
NURS 6912	Pharmacology 2 for Nurse Anesthetists	3
NURS 6913	Medical Chemistry and Physics for Nurse Anesthetists	3
NURS 6914	Human Anatomy, Physiology, and Pathophysiology 1 for Nurse Anesthetists	3
NURS 6916	Anesthesia Principles 1	2
NURS 7010	Human Anatomy, Physiology, and Pathophysiology 2 for Nurse Anesthetists	3
NURS 7011	Anesthesia Principles 2	6
NURS 7012	Anesthesia Principles 3	8
<b>Total Semester Hours</b>		<b>50</b>

## MSN Student Learning Outcomes

All graduates of the program are prepared to:

- Synthesize theory and research from nursing and related disciplines for advanced nursing roles.
- Utilize leadership strategies to influence health and health care and to promote the nursing profession in the advanced nursing role.
- Expand the knowledge of evidence-based practice by identifying nursing research problems and contributing to research investigations.
- Integrate assessment of own learning in developing a lifelong pattern of scholarly inquiry.

Upon successful completion of the MSN program, graduates are eligible to sit for national certification examinations. Once certified, graduates must apply for a Certificate of Authority to practice as an Advanced Practice Nurse in the State of Ohio or in the state in which they intend to practice.

Graduates of the Nurse Anesthetist option are prepared to:

- administer anesthesia in a variety of practice settings to patients needing anesthesia care.
- utilize advanced practice nursing roles within the Health Care Delivery System.

## Nurse Education

The areas of coursework in the M.S.N. program include core courses (16 semester hours), and one of the following options:

- Nurse Education option (27 semester hours)

The breakdown of these course requirements is as follows:

COURSE	TITLE	S.H.
NURS 6900	Professional Issues in Nursing	3
NURS 6901	Nursing Science and Research 1	3

NURS 6902	Advanced Pathophysiology	3
NURS 6906	Advanced Statistics	3
NURS 7002	Nursing Science and Research 2	2
NURS 7005	Capstone Practicum	2
Nurse Education Opton Courses		
NURS 6903	Advanced Pharmacology	3
NURS 6904	Advanced Health Assessment	3
NURS 7018	Nursing Curriculum Design	3
NURS 7019	Nursing Instructional Methods	3
NURS 7020	Evaluation in Nursing Education	3
NURS 7021	Nurse Educator Role	4
NURS 7022	Nurse Educator Role Practicum	5
Cognates: Educational Technology		
Choose one 3 s.h.		
TCED 6905	Introduction to Digital Teaching and Learning	3
TCED 6936	Curriculum, Assessment, and Instruction to Improve Learning	3

**Total Semester Hours** **49**

## MSN Student Learning Outcomes

All graduates of the program are prepared to:

- Synthesize theory and research from nursing and related disciplines for advanced nursing roles.
- Utilize leadership strategies to influence health and health care and to promote the nursing profession in the advanced nursing role.
- Expand the knowledge of evidence-based practice by identifying nursing research problems and contributing to research investigations.
- Integrate assessment of own learning in developing a lifelong pattern of scholarly inquiry.

Upon successful completion of the MSN program, graduates are eligible to sit for national certification examinations. Once certified, graduates must apply for a Certificate of Authority to practice as an Advanced Practice Nurse in the State of Ohio or in the state in which they intend to practice.

Graduates of the Nurse Education option are prepared to:

- practice in advanced nurse educator roles within Academic, Health Care Delivery and Community settings.
- incorporate a variety of theories from nursing and related fields into nursing practice and education roles.
- analyze social issues related to Health Care Delivery Systems and nursing education.

## Master of Social Work

### Program Director

Dr. Andrea Barrick

3381 Cushwa Hall  
(330) 941-1690  
abarrick@ysu.edu

### Program Description

WELCOME! The social work profession combines knowledge skill and compassion to address the common social challenges people encounter. The Master of Social Work program prepares graduates for advanced social work practice with a wide range of clients within a wide range of agency settings. The MSW program's focus is on work with individuals and families. The

organizing framework for the M.S.W. program at Youngstown State University is the strengths-based empowerment approach that emphasizes:

- helping individuals, families, and communities recognize and utilize their capacities;
- gain awareness of available options;
- understand the barriers and obstacles they may face;
- reinforce their hopes and aspirations; and
- integrate internal and external resources to improve the quality of their lives.

The purpose of the M.S.W. program is to develop competent, ethical, and effective professionals capable of utilizing advanced knowledge, skills, and values to promote social justice in the delivery of social services within a diverse society. The integration social work knowledge, values, and skills are achieved through both academic coursework and field placement experiences.

Graduates find employment the practice areas of mental health, medical social work, family services, schools, substance abuse treatment, developmental disabilities, child welfare, the courts among others. Graduates of the Master of Social Work program are eligible to apply for licensure as a Licensed Social Worker (LSW) and a Licensed Independent Social Worker (LISW). Licensure is required for the majority of positions in the human services employment sector.

## Program Locations

A full-time two-year program and part-time three- and four-year programs are available on the Youngstown campus. A one-year (39 hour) program is also available on the main (Youngstown) campus for students that have completed a Bachelor of Social Work degree. Courses on the Youngstown campus are offered on Saturdays and weekday evenings. Students should also be available at additional times (18 hours per week) for field internship engagement that most frequently occurs during daytime, weekday hours.

Two, three and four-year programs are available in partnership with Lorain County Community College in Elyria, Ohio and Lakeland County Community College in Kirtland, Ohio. One-year (39 hour) programs are also available for students that have completed a Bachelor of Social Work degree at the Lorain and Lakeland community college sites. Face-to-face courses at these location are offered on Saturdays with other courses in online format. Students should be available at additional times (18 hours per week) for field internship engagement that most frequently occurs during daytime, weekday hours.

## Accreditation

The Master of Social Work program is accredited by the Council on Social Work Education <http://www.cswe.org/>. Most recent accreditation was achieved in 2012. The program will be due for reaccreditation in 2020. Graduates of the MSW program are eligible for a license in social work (LISW) granted by the Ohio Counselor, Social Work, and Marriage and Family Therapist Board. Seventy-six percent of graduates who took the exam passed in 2015.

## Admission Requirements

Applicants to the M.S.W. program are encouraged to review the admission criteria listed below, as they exceed the minimum standards established by the College of Graduate Studies. Meeting minimum criteria does not guarantee admission. Applicants are evaluated by the Social Work Department's Graduate Admissions Committee to ensure that qualifications are evaluated in a manner consistent with the M.S.W. program's requirements. Application packets are available through the Department of Social Work or Graduate Admissions in Coffelt Hall. Students who are admitted may enter the program only during the fall semester of each academic year.

Admission to the M.S.W. program is based on the following criteria that allow evaluation of the student's potential to succeed in graduate-level social work

education, as well as an assessment of their ability to engage in ethical and competent social work practice in a diverse society.

## Regular Admission

In addition to the minimum College of Graduate Studies admissions requirements, all applicants must meet the following requirements for regular admission to the Master of Social Work program:

- an undergraduate degree, preferably in a social science, from an accredited college or university;
- a cumulative grade point average of 3.0 or above (on a 4.0 scale) in all undergraduate coursework;
- work or volunteer experience related to preparation for professional social work practice;
- three letters of recommendation completed on official forms. Recommendations should include one academic source, one professional source, and one additional source from either of the aforementioned;
- a professional statement reflecting how completion of the M.S.W. will impact upon the student's professional goals and objectives; and
- an optional personal interview and/or additional information as requested by the program's admission committee.
- For non-B.S.W. applicants, one approved social work course OR one course each in the following is required: psychology, sociology, or political science.

## Provisional Admission

Applicants with a undergraduate cumulative grade point average of 2.7 to 2.99 (on a 4.0 scale) may be admitted provisionally. Provisional students must maintain a 3.0 GPA to continue in the program. Provisionally admitted students can be changed to regular when requirements for regular admission have been met.

## One year Program ADMISSION (39 semester hours)

The One Year Program is accelerated for highly qualified graduates of the Council on Social Work Education (C.W.S.E.) accredited Bachelor of Social Work (B.S.W.) programs. The One Year Program permits students to complete all requirements of the M.S.W. degree in 39 semester hours. The regular program is completed in 60 semester hours.

Applicants seeking admission to the OYP must meet all admission requirements for the Master of Social Work program in addition to the following:

- possess a Bachelor of Social Work degree from a C.W.S.E. accredited program within six years prior to enrollment;
- have achieved a cumulative grade point average of at least a 3.25 (on a 4.0 scale) in all undergraduate coursework;
- have achieved A's and B's in all junior and senior level social work courses.

Qualified students who have been convicted of misdemeanor or felony offenses may be admitted to the program. However, field internship opportunities may be restricted due to agency prohibitions pertaining to the engagement of students in agency work in possession of criminal records. Additionally, students should be aware that state licensure in social work may not be possible for individuals with past convictions. Students with convictions are advised to become informed of requirements pertaining to social work licensure and possible avenues of appeal as they consider enrollment in the MSW program and the limitations prior convictions may impose on their ability to practice the profession of social work.

## Graduate Faculty

**Mari L. Alschuler**, Ph.D., Associate Professor  
Reflective journaling; creative arts therapies; LGBTQI issues; student veterans; clinical supervision; group work; macro practice

**Andrea Barrick**, Ph.D., Assistant Professor



Court behavior; legislative behavior; domestic violence; women in politics

**Dana Davis**, Ph.D., Assistant Professor

Harm reduction; housing; teaching methodology

**Thelma Silver**, Ph.D., Professor

Community mental health; mental health recovery; crisis intervention; group work

## Regular Program

Sixty semester hours of coursework are required for completion of the Master of Social Work degree. The program may be completed in two years, three years, or four years all beginning in the fall semester of each year. Foundation social work content is comprised of eight courses and two field practicums with an emphasis on the following areas:

- social work values and ethics,
- diversity,
- populations at risk,
- social and economic justice,
- human behavior in the social environment,
- social welfare policy and services,
- social work practice,
- research, and
- business skills for social workers.

The foundation field practicum is designed to provide the student with learning experiences that promote and integrate the achievement of foundation objectives. The foundation field practicum is taken in two consecutive semesters for a total of six credit hours (480 clock hours). All social work courses are 3 semester hours.

Advanced content areas consist of eight courses and two advanced field practicum with an emphasis on knowledge, skills, and values for advanced direct social work practice with individuals and families. The advanced field practicum is designed to provide learning experiences that promote and integrate the achievement of advanced program objectives. The advanced practicum is taken in two consecutive semesters for a total of six credit hours (540 clock hours).

### PROGRESSION OPTIONS:

**MAIN CAMPUS:** The 60 semester hour program can be completed in 2, 3 or 4 years (no summer courses). Courses are offered Saturdays and weekday evenings. Students engage in field internships throughout the 2 year option, in the second and third years of the 3 year option, and the third and fourth year of the 4 year option. Field internships most frequently occur daytime business hours.

**LAKELAND and LORAIN CAMPUSES:** The 60 hour program is completed in 2, 3 or 4 years (no summer courses). Students enroll in two or three course per semester. Courses are offered on Saturdays and online. Field internships occur in the final two years of the program. Field internships most frequently occur daytime business hours.

### Course Outline: Regular Program

COURSE	TITLE	S.H.
<b>Foundation Courses</b>		
SCWK 6900	Human Behavior and the Social Environment 1	3
SCWK 6901	Oppression and Cultural Competence	3
SCWK 6902	Social Welfare Policy and Program Analysis	3
SCWK 6903	Social Work Foundation Practice 1	3
SCWK 6904	Field Education 1	3
SCWK 6905	Human Behavior and the Social Environment 2	3
SCWK 6906	Business Skills for Social Workers	3

SCWK 6907	Social Work Foundation Practice 2	3
SCWK 6908	Research	3
SCWK 6909	Field Education 2	3
<b>Advanced Courses</b>		
SCWK 7000	Advanced Direct Practice 1	3
SCWK 7002	Adversities and Resiliencies	3
SCWK 7004	Practice Evaluation	3
SCWK 7008	Social Work and the DSM	3
SCWK 7009	Field Education 3	3
SCWK 7003	Theory and Practice of Supervision	3
SCWK 7010	Advanced Direct Practice 2	3
SCWK 7012	Field Education 4	3
SCWK 7013	Capstone	3
Graduate Elective		3
<b>Total Semester Hours</b>		<b>60</b>

## One Year Program (39 hours)

PROGRAM PROGRESSION: (main, Lakeland and Lorain campuses)

This program is completed in 3 consecutive semesters beginning the summer semester. Courses are advanced social work courses combined with three semesters of field practicum. Courses are offered Saturdays, weekday evenings and online. Field internship continues through the summer, fall and spring semesters. The advanced field practicum is designed to provide learning experiences that promote and integrate the achievement of advanced program objectives.

## Course Outline: One Year Program (39 hours)

COURSE	TITLE	S.H.
<b>Summer Semester</b>		
SCWK 6910	Integrated Foundation	3
SCWK 7008	Social Work and the DSM	3
SCWK 6909	Field Education 2	3
<b>Fall Semester</b>		
SCWK 7000	Advanced Direct Practice 1	3
SCWK 7002	Adversities and Resiliencies	3
SCWK 7003	Theory and Practice of Supervision	3
Graduate Elective		3
SCWK 7009	Field Education 3	3
<b>Spring Semester</b>		
SCWK 6906	Business Skills for Social Workers	3
SCWK 7010	Advanced Direct Practice 2	3
SCWK 7004	Practice Evaluation	3
SCWK 7012	Field Education 4	3
SCWK 7013	Capstone	3
<b>Total Semester Hours</b>		<b>39</b>

## Learning Outcomes

The Master of Social Work Program at Youngstown State University is accredited by the Council for Social Work Education (CSWE) the leading accrediting body of social work education. As a result, our Learning Outcomes are dictated by the CSWE and continue to reflect the most up-to-date standards for social work education. These Learning Outcomes focus on the mastery of ten core competencies set by CSWE and reflect specific knowledge, values, skills, and resulting practice behaviors which guide assessment of student achievement.

Coursework contained in the MSW curriculum contributes to student achievement of these competencies. Foundation practice behaviors and advanced practice behaviors serve to provide a means to evaluate the extent to which these competencies have been met by students at the foundation and advanced practice levels of graduate social work education. These competencies are evaluated through the classroom and student engagement in social work field internships.

Learning Outcomes (Competencies):

- 1a. **Demonstrate professional behavior.**
- 1b. **Demonstrate ethical behavior.**
2. **Engage diversity and difference in practice.**
3. **Advance human rights and social, economic, and environmental justice.**
- 4a. **Engage in practice-informed research and research-informed practice.**
- 4b. **Apply critical thinking.**
5. **Engage policy in practice.**
6. **Engage with individuals, families, groups, and communities and organizations.**
7. **Assess individuals, families, families, groups, and communities and organizations.**
8. **Intervene with individuals, families, groups, and communities and organizations.**
9. **Evaluate practice with individuals, families, groups, and communities and organizations.**
10. **Apply knowledge of human behavior and the social environment.**

## Graduate Courses

### SCWK 5820 Social Policy 3 s.h.

Review of the programs, structure, and functions of social services including historical development and social, political, and economic issues. Application of scientific method to analyze and develop social work policies designed to achieve social work goals and purposes.

**Prereq.:** SCWK 2641, POL 1560.

### SCWK 5822 Social Work Methods with Organizations and Communities 3 s.h.

In-depth analysis of problem-solving strategies and skills in working with organizations and communities. Theory and research relating to practice. Social work purpose, functions, and values are addressed from the systems perspective.

**Prereq.:** SCWK 3736.

### SCWK 5823 Cultural Diversity in Practice 3 s.h.

Emphasis on understanding the experiences, beliefs, and inherent problems of racial and ethnic minority groups. Focuses also on populations distinguished by socioeconomic status, gender, age, sexual orientation, religion, and physical or mental disability. Application of theories, differential assessment, and intervention skills necessary for effective social work practice.

**Prereq.:** SCWK 3736 or permission of instructor.

### SCWK 6900 Human Behavior and the Social Environment 1 3 s.h.

An overview of normal individual development throughout the life span. Developmental stages, tasks, and circumstances as well as diversity in individual development will be examined. The influence of biological, psychological, and social systems on individual development throughout the life span constitutes the organizing theme for the course.

### SCWK 6901 Oppression and Cultural Competence 3 s.h.

Examination of the history, demographic trends, and cultures of diverse groups who have been disenfranchised based on differences that include race, gender, age, socioeconomic class, sexual orientation, religion, and ability. Emphasis will be placed on understanding the experience of oppression among diverse groups and the implications for social work practice.

### SCWK 6902 Social Welfare Policy and Program Analysis 3 s.h.

An historical perspective on the development of social problems as well as a critical analysis of social welfare institutions, programs, policy efforts, and services. Attention is given to the consequences of social and economic injustice and the effects that policy initiatives have upon vulnerable populations.

### SCWK 6903 Social Work Foundation Practice 1 3 s.h.

A foundation methods course based on an advanced generalist social work practice perspective. This course demonstrates application of the problem-solving process or the planned change process in the context of the strengths perspective. Attention will be placed on planning interventions with diverse individuals, families, and small groups.

### SCWK 6904 Field Education 1 3 s.h.

Professionally supervised practice in approved community agencies. Focus will be on increasing the student's analytic skills and repertoire of intervention modalities. The course is based on foundation coursework that emphasizes advanced generalist practice while promoting a strengths-based approach.

**Concurrent:** SCWK 6903.

### SCWK 6905 Human Behavior and the Social Environment 2 3 s.h.

An overview of theories and knowledge of the behavior of groups, organizations, and communities as well as the impact of these systems on individual behavior. Special emphasis is given to understanding the influence of mesosystems and macrosystems on social service organizations. Empowerment-based policies are explored.

**Prereq.:** SCWK 6900.

### SCWK 6906 Business Skills for Social Workers 3 s.h.

Overview of the principles, concepts, and terminology related to social work business practice. Topics include time management, financially responsible practice, managed care issues, organizational efficiency and effectiveness, outcome measurements, performance evaluation, marketing for nonprofit organizations, community building and collaborative efforts. State-of-the-art technology will be reviewed.

**Prereq.:** SCWK 6900.

### SCWK 6907 Social Work Foundation Practice 2 3 s.h.

A foundation methods course based on an advanced generalist social work practice perspective. This course demonstrates application of the problem-solving process or planned change process in the context of the strengths perspective. Attention will be placed on planning interventions with diverse organizations and communities.

**Prereq.:** SCWK 6903.

### SCWK 6908 Research 3 s.h.

A review of the scientific method, quantitative and qualitative research strategies, and related concepts. Principles of conceptualization, research design, sampling, instrumentation, descriptive and inferential data analysis, scientific report writing, and the significance of research for social work practice will be emphasized. Attention will be placed on developing strengths-based performance indicators.

**Prereq.:** SCWK 6900.

### SCWK 6909 Field Education 2 3 s.h.

Professionally supervised practice in approved community agencies. Focus will be on increasing both the student's analytic skills and repertoire of intervention modalities. The course is based on foundation coursework that emphasizes advanced generalist practice while promoting a strengths-based approach.

**Concurrent:** SCWK 6907.

**SCWK 6910 Integrated Foundation 3 s.h.**

An advanced course that emphasizes social work values, ethical dilemmas/implications, and the development of practice methods that integrate a strengths-based empowerment approach with individuals, families, and groups.

**Prereq.:** SCWK 6907.

**SCWK 7000 Advanced Direct Practice 1 3 s.h.**

The development of adversities experienced by individuals from conception through adulthood. The course employs a multisystems ecological perspective in discussing risk conditions, stressful life events, and the interplay of risk and protective factors that appear to be common to many childhood disorders and problems.

**Prereq.:** SCWK 6901.

**SCWK 7002 Adversities and Resiliencies 3 s.h.**

A review of the education, administration, and support aspects of supervision, as well as individual, group, and peer group modalities. Emphasis will be placed on supervisory issues as they relate to diversity, strengths-based assessment, and the development of multicultural competence.

**Prereq.:** SCWK 6905.

**SCWK 7003 Theory and Practice of Supervision 3 s.h.**

Explores advanced techniques for evaluating systems of all sizes. Methods and strategies for conducting program evaluation and single system research will be emphasized. Special emphasis will be placed on developing strengths-based performance indicators.

**Prereq.:** SCWK 6908.

**SCWK 7004 Practice Evaluation 3 s.h.**

This course examines social work with the elderly through critical analysis of policy, specific human behavior content, and research. Students will critique practice interventions, program design, and service strategies specific to social work practice in settings for the aged.

**SCWK 7006 Social Work in Aging 3 s.h.**

This course examines social work in child and family settings through critical analysis of policy, specific human behavior content, and research. Students will critique practice interventions, program design, and service strategies specific to social work practice in child and family settings.

**SCWK 7007 Social Work in Child and Family Settings 3 s.h.**

This course examines social work in mental health settings through critical analysis of policy, specific human behavior content, and research. Students will critique practice interventions, program design, and service strategies specific to social work practice in mental health settings.

**SCWK 7008 Social Work and the DSM 3 s.h.**

This course examines social work in mental health and chemical dependency with an emphasis on the DSM and ICD. Application of assessment is through a bio-psycho-social-spiritual perspective with a focus on current practices.

**SCWK 7009 Field Education 3 3 s.h.**

A continuation of SCWK 7000 Advanced Direct Practice I. In addition to developing practice methods that integrate a strengths-based empowerment approach with individuals, this course incorporates theoretical frameworks and constructs from empowerment theory, the ecological perspective, solution-focused practice, the feminist perspective, person-centered practice, and other relevant, brief practice approaches.

**Prereq.:** SCWK 7000.

**SCWK 7010 Advanced Direct Practice 2 3 s.h.**

Advanced field education placement. Students participate in planned experiences that integrate theoretical knowledge, social work practice skills, and social work ethics and values in direct or macro practice settings. Theoretical frameworks address micro and macro concerns respectively by emphasizing empowerment, individual strengths, solution-focused practice, community building, collaboration and organizational structures.

**Concurrent:** SCWK 7010.

**SCWK 7012 Field Education 4 3 s.h.**

This course provides opportunities for students to synthesize and integrate previous coursework from their social work education. Theoretical and experiential assignments are utilized to assist students with increased self-awareness and to prepare them for the transition from college to advanced professional social work practice that emphasizes the strengths-based approach.

**Concurrent:** SCWK 7012.

**SCWK 7013 Capstone 3 s.h.**

Advanced seminar on selected topics in social work theory, methods, and research. May be repeated with different topics.

**SCWK 7014 Selected Topics in Social Work 3 s.h.**

**SCWK 7014F Selected Topics in Social Work Spirituality in Social Work Practice 3 s.h.**

## Certificate in Aging Studies

### Department of Sociology, Anthropology and Gerontology

Daniel J. Van Dussen, Ph.D.

440 DeBartolo Hall

(330) 941-1683

djvandussen@ysu.edu

### Certificate Description

The curriculum is designed from an interdisciplinary perspective of gerontology with a focus on epidemiology and health. This program will provide students with advanced education in issues facing older adults, their families and provide an in depth knowledge of the policies which impact aging and our population. The program consists of 18 semester hours, which may be completed in two semesters of full-time coursework or part time.

### Admission Requirements

Applicants for this graduate certificate must meet the requirements for admission to the College of Graduate Studies at YSU.

COURSE	TITLE	S.H.
SOC 6905	Social Gerontology	3
GERO 6915	Service Delivery Aging Policy	3
GERO 6906	Perspectives in Gerontology	3
GERO 6960	Epidemiology of Aging	3
GERO 6998	Anatomy and Physiology of Aging	3
Gerontology Elective		3
<b>Total Semester Hours</b>		<b>18</b>

Notes:

Students will be required to take one elective (3 semester hours). We will schedule at least one selected topics elective class per academic year. This gives students the opportunity to plan when they want to take this course based upon their professional goals.

Proposed Sequencing of Courses for Full-Time Students:

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
GERO 6960	Epidemiology of Aging	3
GERO 6906	Perspectives in Gerontology	3

GERO 6915	Service Delivery Aging Policy	3
<b>Semester Hours</b>		<b>9</b>
<b>Spring</b>		
GERO 6998	Anatomy and Physiology of Aging	3
GERO 7094	Selected Topics	3
SOC 6905	Social Gerontology	3
<b>Semester Hours</b>		<b>9</b>
<b>Total Semester Hours</b>		<b>18</b>

## Certificate in Applied History

### Department of History

Dr. Donna M. DeBlasio, Certificate Director  
537 DeBartolo Hall  
(330) 941-3453  
dmdeblasio@ysu.edu

#### Certificate Description

The certificate in applied history is designed both to give students a grounding in American history and historical research at the graduate level and to introduce them to ideas and techniques useful in the field. Students earning the certificate may find work with state or local preservation groups, museums, or government agencies. Students choose from among three possible tracks described below.

#### Admission Requirements

Applicants for this graduate certificate must meet the requirements for admission to the College of Graduate Studies at YSU.

COURSE	TITLE	S.H.	
Select one of the following tracks:			
<b>Track I: History Preservation</b>			
HIST 5806	American Architectural History 1	18	
HIST 5807	American Architectural History 2		
HIST 5810	Conservation of the Historic Built Environment		
HIST 6942	Applied History		
HIST 6943	Practicum in Applied History		
HIST 6944	Applied History Internship		
<b>Track II: Museum Studies</b>			
HIST 6941	American Material Culture		
HIST 6942	Applied History		
HIST 6943	Practicum in Applied History		
HIST 6944	Applied History Internship		
HIST 6955	Museum Curation and Interpretation 1		
HIST 6956	Museum Curation and Interpretation 2		
<b>Track III: Applied History Sequence</b>			
HIST 5806	American Architectural History 1		
HIST 6940	Oral History		
HIST 6941	American Material Culture		
HIST 6942	Applied History		
HIST 6944	Applied History Internship		
HIST 6946	Historical Editing		
<b>Total Semester Hours</b>		<b>18</b>	

#### Learning Outcomes:

Students will demonstrate the ability to translate traditional historical scholarship into media meant primarily for non-academic audiences

## Certificate in Biological Sciences

### Department of Biological Sciences

Dr. Mark Womble, Graduate Program Director  
4063 Ward Beecher Science Hall  
(330) 941-4727  
mdwomble@ysu.edu

#### Certificate Description

The Graduate Certificate in Biological Sciences provides CCP high school teachers who teach General Biology courses for college credit the required 18 credit hours of graduate-level Biology content courses.

#### Admission Requirements

- A previously obtained undergraduate degree from an accredited college or university, with a minimum cumulative grade point average of 2.7.
- Must be a licensed science teacher.
- Have an undergraduate degree that included a minimum total of 20 credit hours in Biology, Chemistry, and/or Physics.
- Submission of two (2) letters of recommendation.

#### Certificate Requirements

The Certificate requires the completion of at least 18 credit hours of Biology graduate courses. At least 9 credit hours of this coursework must be at the 6900 level. All courses must be graded and all course grades must be at the A or B level.

Students should consult with the departmental Graduate Director to decide which Biology courses best meet his/her educational goals and to devise a curricular plan for completion of the Certificate program.

## Certificate in Economics

### Department of Economics

Dr. Tod Porter, Chair  
303 DeBartolo Hall  
(330) 941-3428 ([http://catalog.ysu.edu/graduate/graduate-programs/certificate-economics/tel:\(330\)%20941-3428](http://catalog.ysu.edu/graduate/graduate-programs/certificate-economics/tel:(330)%20941-3428))  
tsporter@ysu.edu

#### CERTIFICATE DESCRIPTION

This is a six-course certificate (18 semester hours) designed for high school teachers who wish to participate in the College Credit Plus program and teach principles of economics.

#### Admission Requirements

Prior to starting the program students must have taken one of the following courses:

COURSE	TITLE	S.H.
MATH 1552	Applied Mathematics for Management	4
MATH 1570	Applied Calculus 1	4
MATH 1571	Calculus 1	4

#### CERTIFICATE REQUIREMENTS

COURSE	TITLE	S.H.
ECON 6912	Microeconomic Theory	3
ECON 6922	Macroeconomic Theory	3
ECON 6939	The Economics of Financial Markets and Institutions	3
ECON 6945	Public Finance	3

Two 3-hour courses at the 6900 or 5800 level (the 5800-level classes must be taken as a graduate student)

**Total Semester Hours**

**18**

Students must pass ECON 6912, Microeconomic Theory, and ECON 6922, Macroeconomic Theory, with a grade of "B" or better prior to teaching ECON 2610, Principles 1: Microeconomics, or ECON 2630, Principles 2: Macroeconomics.

## Certificate in English

### Department of English

Dr. Lucas Hardy, Graduate Director  
240 DeBartolo Hall  
330-941-3420  
lhardy01@ysu.edu

#### Certificate Description

This is a six-course certificate (18 semester hours) specifically targeted at teachers in the College in High School program. It responds directly to the state's demand for training College in High School teachers and to YSU's recent scholarship program for such teachers.

#### Admission Requirements

Applicants for this graduate certificate must meet the requirements for admission to the College of Graduate Studies at YSU.

#### Certificate Requirements

COURSE	TITLE	S.H.
ENGL 6906	Teaching of Literature	3
ENGL 6907	Teaching of Writing	3
ENGL 6922	Twentieth-Century American	3
ENGL 6915	Early American Studies	3
or ENGL 6917	Nineteenth-Century American Studies	
<b>Select two of the following:</b>		<b>6</b>
ENGL 6911	The Medieval World	
ENGL 6912	Sixteenth- and 17th-Century British Studies	
ENGL 6913	Shakespeare and Renaissance Drama	
ENGL 6914	Restoration and 18th-Century British Studies	
ENGL 6915	Early American Studies	
ENGL 6916	Nineteenth-Century British Studies	
ENGL 6917	Nineteenth-Century American Studies	
ENGL 6919	Studies in Young Adult Literature	
ENGL 6920	Twentieth-Century British Studies	
ENGL 6923	Working Class Literature	
ENGL 6935	Studies in Romanticism	
ENGL 6963	Perspectives in Multicultural Studies	
ENGL 6968	Studies in Literary Form	
ENGL 6975	English Education Seminar	
ENGL 6976	Studies in English Education	

**Total Semester Hours**

**18**

## Certificate in Enterprise Resource Planning

### Department of Management

Dr. Rangamohan V Eunni, Chair  
3379 Williamson Hall

(330) 941-7180  
rveunni@ysu.edu (rrkasuganti@ysu.edu)

#### Certificate Description

This four-course certificate (8 semester hours) is designed to meet the needs of current M.B.A. students and M.B.A. graduates interested in enhancing their effectiveness in organizations using Enterprise Resource Planning software, which is increasingly prevalent in today's business organizations. Students will have intensive hands-on experience with SAP-ERP software. The program covers topics such as ERP software evaluation and selection, materials management, configuration, and supply chain management. The overall goal of this certificate is to enable students (both current and future managers) in all areas of a business organization to be effective users of integrated ERP software and to be effective participants in managing the evaluation, installation, and use of ERP software.

#### Admission Requirements

Applicants for this graduate certificate must meet the requirements for admission to the College of Graduate Studies at YSU.

#### Certificate Requirements

COURSE	TITLE	S.H.
MGT 6947	Managing Information & Technology	2
MGT 6944	Managing Business Processes	2
MGT 6945	Business Process Integration	2
MGT 6946	Supply Chain Management	2

Non-business graduate students and area professionals with non-business degrees must complete 5 s.h. of M.B.A. courses (MGT 6930, MKTG 6943, and ACCT/FIN 6902) in addition to the 8 s.h. required for the certificate (total of 13 s.h.).

**Total Semester Hours**

**8**

## Certificate in Environmental Studies

### Department of Geological and Environmental Sciences

Dr. Felicia Armstrong  
2080 Moser Hall  
(330) 941-1385  
fparmstrong@ysu.edu

#### Certificate Description

This sequence of 15 semester hours is designed to meet the needs of students and working professionals preparing for leadership roles in environmental science or management. The graduate certificate is focused in two tracks, with specialization in risk management and industrial/institutional management. This program is especially useful for careers with:

- regulatory agencies,
- industries seeking compliance with environmental regulations or focusing on environmental management systems,
- research facilities, and
- consulting firms providing state-of-the-art assessment, management, and remediation.

The program will also prepare the student to continue graduate studies leading to higher degrees.

#### Admission Requirements

Applicants for this graduate certificate must meet the requirements for admission to the College of Graduate Studies at YSU.

Undergraduate courses will not qualify for the certificate, but the following may be suggested for preparation for courses above:

COURSE	TITLE	S.H.
AHLT 4831	Industrial Hygiene	3
CHEM 3764	Chemical Toxicology	3

### Certificate Requirements

To receive a certificate in environmental studies, all students must complete 15 semester hours of credit from coursework listed below. A grade point average of 3.0 or above must be achieved for all 15 semester hours of credit.

#### Risk Management Track

COURSE	TITLE	S.H.
<b>Core courses (taken by certificate candidates in both tracks)</b>		
ENST 6900	Advanced Environmental Studies	3
ENST 6901	Sources of Contamination	3
<b>Risk Management Track</b>		
ENST 6930	Risk Management	3
ENST 6931	Ecological Risk Assessment	3
Select one of the following:		3
AHLT 5807	Epidemiology	
BIOL 5806	Field Ecology	
BIOL 6996	Topics in Ecology	
CHEM 6941	Advanced Organic Chemistry 1	
ENST 5830	Risk Assessment	
<b>Total Semester Hours</b>		<b>15</b>

#### Industrial/Institutional Management Track

COURSE	TITLE	S.H.
<b>Core courses (taken by certificate candidates in both tracks)</b>		
ENST 6900	Advanced Environmental Studies	3
ENST 6901	Sources of Contamination	3
<b>Industrial/Institutional Management Track</b>		
ENST 6920	Environmental Compliance	3
ENST 6921	Industry/Institutional Management for the Environmental Professional	3
Select one of the following:		3
ENGR 6925	Applied Environmental Management	
ENST 5800	Environmental Impact Assessment	
ENST 5830	Risk Assessment	
ENST 6910	Environmental Management Systems Standards (ISO 14001)	
ENST 6930	Risk Management	
<b>Total Semester Hours</b>		<b>15</b>

## Certificate in Health Care Management

### Department of Health and Human Services

Dr. Joseph Lyons  
1086 Cushwa Hall  
(330) 941-3658  
jplyons@ysu.edu

#### Certificate Description

The health care management graduate certificate is a collaborative program between The Bitonte College of Health and Human Services and the Warren P. Williamson, Jr. College of Business Administration. The sequence of 18

semester hours is designed to meet the needs of students and working professionals preparing for leadership roles in health care management. The certificate consists of six semester hours of business tool courses and twelve semester hours of health care management courses.

### Learning Outcomes:

The student will demonstrate skills to access and integrate important facts, concepts, principles, and theories in the field of management when developing solutions to problems.

### Admission requirements

In addition to the minimum College of Graduate Studies admission requirements, applicants must complete the following undergraduate courses or their equivalent:

COURSE	TITLE	S.H.
	Research Methodology	
	Statistics	
ACCT 2602	Financial Accounting	3
AHLT 4810	Management Skills for Health Professionals	3
OR		
MGT 3725	Fundamentals of Management	3

Students should complete any undergraduate deficiency coursework before completion of the third semester of graduate work and must complete it prior to enrolling in related graduate-level courses. Also, students must submit three letters of reference:

- one from a faculty member,
- one from an employer, and
- one from another source, or
- two from faculty members and one from another source.

Regular admission requires a cumulative undergraduate grade point average of at least 3.0 (on a 4.0 scale).

### Certificate Requirements

COURSE	TITLE	S.H.
Select six hours from the following:		
ECON 6900	Statistical Problems	
or C.JFS 6942	Research and Statistics in Health and Human Services	
ECON 6921	Economic Analysis of Markets and Industries	
FIN 6900	Financial Accounting and Finance for Decision Making	
FIN 6923	Corporate Financial Management	
HHS 6930	Health Informatics	
MKTG 6943	Consumer & Product Management	
Select nine hours from the following:		9
HHS 6918	Program Planning and Evaluation	
HHS 6922	Planning and Fiscal Management	
HHS 6959	Foundation and Planning	
HHS 6960	Implementation and Evaluation	
MGT 6975	Strategic Management	
Select one of the following:		3
HHS 6949	Community Health Practice	
HHS 6953	Health Behavior	
HHS 6958	Health Services Issues	
<b>Total Semester Hours</b>		<b>18</b>

# Certificate in Instructional Communication

## Department of Communication

Dr. Rebecca M.L. Curnalia

2023 Bliss Hall  
(330) 475-9295  
rncurnalia@ysu.edu (jplyons@ysu.edu)

### Certificate Description

This 18-semester hour, six-course certificate is designed for people who have earned, or are in the process of earning, a Master's Degree who also need focused coursework to teach college-level communication courses.

### Admission Requirements

Applicants for this graduate certificate must meet the requirements for admission to the College of Graduate Studies at YSU.

### Certificate Requirements

COURSE	TITLE	S.H.
CMST 6945	Communication for the Classroom Teacher	3
CMST 6980	Applied Research Methods	3
CMST 6950	Computer Mediated Communication Research	3
CMST 5860	Persuasion and New Media	3
Choose two of the following		6
CMST 5898	Seminar	
CMST 5852	Conflict Management and Negotiation	
CMST 6953	Group Dynamics: Theory and Research	
CMST 6957	Organizational Communication Research	
CMST 6991	Communication Problems: Independent Study	
<b>Total Semester Hours</b>		<b>18</b>

# Certificate in Literature for Children and Young Adults

## Department of English

Dr. Lucas Hardy, Graduate Director  
240 DeBartolo Hall  
330-941-3420  
lhardy01@ysu.edu

### Certificate Description

This four-course certificate (12 semester hours total) is designed to increase students' knowledge of children's and young adult literature while helping them achieve certain career goals. For students who intend to pursue doctoral work, concentrated study in children's and young adult literature will help to prepare them to specialize in these fields at the doctoral level. For those who teach at the elementary, middle school, and high school levels, such study will enhance their teaching careers by increasing their knowledge of literature for young people and helping satisfy certain professional development requirements of local school districts. For prospective or practicing librarians, the certificate will provide further expertise in establishing and maintaining library collections for young readers. Depending upon course rotation, students may finish the certificate within one year.

# Admission Requirements

To be eligible for the graduate certificate in literature for children and young adults, students need not have an undergraduate degree in English, but they must have a B.A. or B.S. degree and meet the requirements for admission to the College of Graduate Studies at YSU. Certificate courses must be completed with a GPA of at least 3.0.

### Certificate Requirements

COURSE	TITLE	S.H.
ENGL 6918	Studies in Children's Literature	3
ENGL 6919	Studies in Young Adult Literature	3
ENGL 6927	Historical Survey of Literature for Young People	3
Complete one course from the following, if the topic relates to children's or young adult literature, with permission of the certificate director:		3
ENGL 6906	Teaching of Literature	
ENGL 6918	Studies in Children's Literature (may be repeated with a different topic)	
ENGL 6919	Studies in Young Adult Literature (may be repeated with a different topic)	
ENGL 6975	English Education Seminar	
ENGL 6976	Studies in English Education	
ENGL 6990	Special Topics	
ENGL 6969	Writing the Youth Novel	
Or students may elect to take one course in a related discipline (e.g., psychology, history, education, art) when content is appropriate, with permission of the certificate director.		
<b>Total Semester Hours</b>		<b>12</b>

# Certificate in Mathematics

## Department of Mathematics and Statistics

Dr. Thomas Wakefield  
618 Lincoln Building  
(330) 941-1395  
tpwakefield@ysu.edu

### Certificate Description

The Department of Mathematics and Statistics, responding to state requirements that College in High School mathematics teachers, adjunct faculty at colleges, and faculty at community colleges obtain at least 18 semester hours of mathematics at the graduate level, offers a Graduate Certificate in Mathematics. The certificate is an attractive option for recognizing those looking to improve their credentials and teach College in High School courses. In addition to teachers looking to strengthen their credentials and background in mathematics, the certificate is a viable option for students who seek to strengthen their mathematical background before pursuing graduate study in mathematically-intense disciplines such as economics and finance. The educational objectives of this additional option within the program are to strengthen the mathematical background and preparation of secondary mathematics educators who teach approved college-level mathematics courses in their high schools and to provide students a means to strengthen their graduate mathematical background without having to complete a graduate degree in mathematics.

### Admission Requirements

The admission standards for the Graduate Certificate in Mathematics are the following:

- The minimum admission standards of the College of Graduate Studies.
- An undergraduate cumulative grade point average of at least 3.0 in all undergraduate mathematics and statistics courses.

- A completed sequence in standard calculus including multivariable calculus.

## Certificate Requirements

The GCM requires 6 courses (18 semester hours) selected from our rotation of graduate course offerings in mathematics and statistics and completed with a 3.0 GPA. At least 12 of the hours of the certificate must be completed at the 6900-level. The student, in consultation with the Graduate Executive Committee, will submit a curricular plan for the certificate by deciding which mathematics and/or statistics graduate courses best meet his/her educational goals. Course substitutions must be approved by the Graduate Executive Committee within the Department of Mathematics and Statistics.

## Certificate in Professional and Technical Writing

### Department of English

Dr. Lucas Hardy, Graduate Director  
240 DeBartolo Hall  
330-941-3420  
lhardy01@ysu.edu

#### Certificate Description

This four-course certificate (12 semester hours) is designed to meet the needs of students preparing for careers as:

- technical writers and editors;
- company news and information directors;
- or grant and proposal writers for schools, hospitals, nonprofit organizations, and fine and performing arts groups.

Frequency of course offerings allows most students to finish the certificate within four semesters.

## Admission Requirements

To be eligible for the **Professional and Technical Writing** graduate certificate, students need not have an undergraduate degree in English, but they must have a B.A. or B.S. degree and meet the requirements for admission to the College of Graduate Studies at YSU.

## Certificate Requirements

COURSE	TITLE	S.H.
<b>Required Courses</b>		
ENGL 6943	Technical Communication	3
ENGL 6944	Document Design and Production	3
Select two courses from Group A or one course from each Group:		6
<b>Group A</b>		
ENGL 6945	Theory of Professional and Technical Communication	
ENGL 6949	Professional and Technical Editing	
ENGL 6953	Publications Issues and Management	
ENGL 6992	Professional Communication	
<b>Group B</b>		
ENGL 6950	Sociolinguistics	
ENGL 6958	English Grammar	
ENGL 6993	Discourse Theory	
<b>Total Semester Hours</b>		<b>12</b>

Although ENGL 6998 Professional Writing Internship does not count toward the 12 semester hour requirement for the certificate, students are strongly urged to take this course or seek equivalent professional experience.

## Certificate in Teaching English to Speakers of Other Languages (TESOL)

### Department of English

Dr. Lucas Hardy, Graduate Director  
240 DeBartolo Hall  
330-941-3420  
lhardy01@ysu.edu

#### Certificate Description

This four-course sequence (12 semester hours) is valuable for anyone who wishes to gain more knowledge of second/foreign language learning. It is also useful as a springboard to further graduate work in the field. It is designed to meet the needs of:

- K–12 language arts instructors who want more information but not necessarily state endorsement;
- writing instructors at two-year colleges; and
- students who would like to enter doctorate programs in applied linguistics, English as a second language, or second language acquisition.

Students gain an understanding of issues of language acquisition and language pedagogy.

## Admission Requirements

To be eligible for the graduate certificate in the teaching of English to speakers of other languages, students need not have an undergraduate degree in English or linguistics but must have a B.A. or B.S. and meet requirements for admission to the College of Graduate Studies at YSU.

## Certificate Requirements

Students who have not taken an introductory linguistics course at the undergraduate level will be expected to do extra reading to get an understanding of basic terms. The department's advanced linguistics course (ENGL 6955 Advanced Linguistics) may also serve to provide background. Students should see an advisor for the TESOL certificate program.

Students must complete the following four courses:

COURSE	TITLE	S.H.
ENGL 6950	Sociolinguistics	3
ENGL 6951	Language Acquisition	3
ENGL 6956	TESOL Methods	3
ENGL 6958	English Grammar	3
<b>Total Semester Hours</b>		<b>12</b>

## Certificate in the Teaching of Literature

### Department of English

Dr. Lucas Hardy, Graduate Director  
240 DeBartolo Hall  
330-941-3420  
lhardy01@ysu.edu

#### Certificate Description

This is a four-course certificate (12 semester hours) that will be valuable for teachers of literature at junior high schools, high schools, and two-year colleges. It would also be useful as a springboard to further graduate study in



literature. This certificate would allow those teaching literature or interested in teaching literature a focus within the MA in English or a stand-alone foundation in the subject.

## Admission Requirements

To be eligible for the graduate certificate in teaching of writing, students need not have an undergraduate degree in English but must have a B.A. or B.S. degree and meet requirements for admission to the College of Graduate Studies at YSU.

## Certificate Requirements

COURSE	TITLE	S.H.
<b>Required Courses</b>		
ENGL 6906	Teaching of Literature	3
ENGL 6902	Literary Thought	3
Students must take one course from two of the following three areas:		6
<b>British Literature</b>		
ENGL 6911	The Medieval World	
ENGL 6912	Sixteenth- and 17th-Century British Studies	
ENGL 6913	Shakespeare and Renaissance Drama	
ENGL 6914	Restoration and 18th-Century British Studies	
ENGL 6916	Nineteenth-Century British Studies	
ENGL 6920	Twentieth-Century British Studies	
ENGL 6935	Studies in Romanticism	
<b>American Literature</b>		
ENGL 6915	Early American Studies	
ENGL 6917	Nineteenth-Century American Studies	
ENGL 6922	Twentieth-Century American	
ENGL 6923	Working Class Literature	
<b>Multicultural Literature</b>		
ENGL 6963	Perspectives in Multicultural Studies	
<b>Total Semester Hours</b>		<b>12</b>

## Certificate in Teaching of Writing

### Department of English

Dr. Lucas Hardy, Graduate Director  
240 DeBartolo Hall  
330-941-3420  
lhardy01@ysu.edu

#### Certificate Description

This four-course certificate (12 semester hours) is valuable as an enhancement for employment as a writing instructor and also as a springboard to further graduate work in the field. It is designed to meet the needs of K–12 language arts teachers; writing instructors at two-year colleges; and YSU graduate students who would like to enter doctorate programs in rhetoric and composition. Students gain understanding of issues in the field of rhetoric and composition, such as:

- current writing pedagogy,
- assessment of writing,
- language theory,
- language varieties,
- multicultural literacies,
- electronic literacies, and
- teaching strategies incorporating electronic media.

Frequency of course offerings allows most students to finish the certificate in two to three semesters.

## Admission Requirements

To be eligible for the graduate certificate in teaching of writing, students need not have an undergraduate degree in English but must have a B.A. or B.S. degree and meet requirements for admission to the College of Graduate Studies at YSU.

## Certificate Requirements

COURSE	TITLE	S.H.
ENGL 6901	Methods of Composition Research	3
ENGL 6907	Teaching of Writing	3
Select one of the following:		3
ENGL 6900	Methods of Literary Research	
ENGL 6906	Teaching of Literature	
ENGL 6943	Technical Communication	
ENGL 6956	TESOL Methods	
ENGL 6976	Studies in English Education <sup>1</sup>	
Select one of the following:		3
ENGL 6950	Sociolinguistics	
ENGL 6958	English Grammar	
ENGL 6993	Discourse Theory	
<b>Total Semester Hours</b>		<b>12</b>

<sup>1</sup> If topic applied to rhetoric and composition.

## Certificate in Nurse Education

### Department of Nursing

Dr. Valerie O'Dell, Certificate Director  
3132 Cushwa Hall  
(330) 941-2177  
vmodell@ysu.edu

#### Certificate Description

The five-course (16 – 18 s.h.) nurse education certificate is designed to prepare the post-masters prepared nurse with opportunities to further their education and develop and refine new skills that will enhance their professional development as nurse educators.

The certificate nurse educator program is not a degree program. This program is designed to enhance the professional development of registered nurses by providing education and training that prepares them for nurse educator roles and teaching positions in academic and service settings. At the completion of this certificate program, the student would be eligible to sit for the National League for Nursing Certified Nurse Educator examination.

## Admission Requirements

- MSN degree in Nursing from an accredited college/university
- Official transcript from each college or university attended (except YSU)
- Overall grade point average of 3.0 in graduate work
- Current Ohio Registered Nurse licensure or eligibility for Ohio licensure as a registered nurse
- Current CPR certification and current immunization
- Personal statement describing career goals
- Three letters of reference: one each from a faculty member, an employer, and a colleague
- Computer competency that includes word processing skills and the ability to communicate electronically

- Letter of intent (300 words) maximum stating one’s professional career goals and how graduate education in nursing will help fulfill said goals

## Certificate Requirements

The Nurse Education Certificate Program consists of 16-18 semester hours. The curriculum is designed to prepare students to implement the nurse educator role in a variety of settings. Students will develop competencies in program and curriculum design, implementation, instructional methods, and evaluation methods for diverse populations in a variety of settings.

Students are provided an opportunity to synthesize learning and function in the roles of a nurse educator by completing a required capstone practicum of 3-5 semester hours.

COURSE	TITLE	S.H.
NURS 7018	Nursing Curriculum Design	3
NURS 7019	Nursing Instructional Methods	3
NURS 7020	Evaluation in Nursing Education	3
NURS 7021	Nurse Educator Role	4
NURS 7022	Nurse Educator Role Practicum	3-5
<b>Total Semester Hours</b>		<b>16-18</b>

## Certificate in Working-Class Studies

Timothy Francisco, Certificate Director

DeBartolo Hall 216

(330) 941-3425

tfrancisco@ysu.edu (sllinkon@ysu.edu)

This four-course certificate (12 semester hours) is designed to provide students with an interdisciplinary overview of the history and political and cultural meanings of working-class life. Program emphasis is on concepts of class, work, and identity, as well as strategies from multiple disciplines for gaining insight into working-class culture. For graduate students and working professionals, this program will provide an in-depth look at local history, local working-class culture, and the lives and experiences of local working people. For educators at middle and high school levels, this program will enhance their teaching careers by increasing their knowledge about working-class culture, issues, and pedagogy while satisfying certain professional development requirements of local school districts. Frequency of course offerings allows most students to finish the certificate within one year.

## Admission Requirements

Applicants for this graduate certificate must meet the requirements for admission to the College of Graduate Studies at YSU.

## Certificate Requirements

COURSE	TITLE	S.H.
AMER 5850	Class and Culture	3
AMER 6910	Introduction to Working-Class Studies	3
AMER 6970	Teaching Working-Class Studies	3
ENGL 6923	Working Class Literature	3
HIST 6939	Labor in US History	3
HIST 6945	Interpretation and Preservation of the Industrial Built Environment	3
MGT 5845	Work in America	3

Students may also petition to have one relevant topics course in English, history, or management count toward the certificate. Students may complete

the certificate as a stand-alone program or in conjunction with a master’s degree in American studies, business, English, historic preservation, or history. Students taking the certificate as part of a master’s program may count two of the four certificate courses toward the master’s degree. To complete the certificate, the remaining two courses must be taken as additional credits.

## Educational Licensure

### Counseling, School Psychology and Educational Leadership

Dr. Charles Vergon  
4103 Beeghly Hall  
(330) 941-1574  
cbvergon@ysu.edu

## Post-master’s Licensure Requirements

Candidates for Ohio administrative license must have completed the 30 semester hours for the M.S. in Education degree in Educational Administration as required by YSU or its equivalent as evaluated by the Department of Educational Foundations, Research, Technology, and Leadership.

### Principal License (OHIO) (6 semester hours)

Elementary Principal License Grades PK-6

Middle School License Grades 4-9

Secondary Principal License Grades 5-12

The licensure course work is entirely clinical in nature, consisting of two courses comprising 6 semester hours. The courses are designed to afford candidates the opportunity to apply the content knowledge from their course work and practice the skills necessary to effective leadership. Across the two courses, candidates observe and then carry out a range of administrative responsibilities including analyzing student performance, carrying out clinical supervision of teaching staff, writing a staff improvement plan, designing a HQ staff development program, creating a master schedule, participating in teacher hiring processes, administering student discipline, conducting school safety drills, and coordinating special education meetings and functions, among others. In addition, in the second clinical practice candidates design and implement an Integrated School Improvement Project addressing a real need in their school setting. Candidates and faculty participate in an interactive on-line clinical learning community spanning diverse and geographically dispersed clinical sites.

COURSE	TITLE	S.H.
EDAD 6975	Introduction to Administration Clinical Experience	3
EDAD 7022	Field Experience (Elementary 7022E; Middle 7022M; or Secondary 7022S)	3
<b>Total Semester Hours</b>		<b>6</b>

Candidates must hold or qualify for a valid teacher certificate/license at the same level as the administrative license being sought; and have two years of successful teaching under a professional teaching license at the same level as the administrative license being sought. In addition, candidates must have a passing score on the state-prescribed administrative licensure exam for the principalship.

### Administrative Specialist License

#### Administrative Specialist License in Curriculum, Instruction, and Professional Development

Master’s degree in educational administration, plus 18 hours of course work from the following list, which must include EDAD 7040 Clinical Practice for the Administrative Specialist:

COURSE	TITLE	S.H.			
TCED 6922	Principles of Instruction	3	EDAD 7050	Clinical Experience: Superintendency	3
TCED 6934	Assessment and Accountability	3	<b>Total Semester Hours</b>		
TCED 6936	Curriculum, Assessment, and Instruction to Improve Learning	3	<b>15</b>		

SPED 6900	Issues, Trends & Foundations in Special Education	3
SPED 7077	Leadership in Special Education	3
EDAD 7014	Systematic Use of Information for Continuous School Improvement	3
EDAD 7018	School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies	3
EDAD 7040	Clinical Practice for the Administrative Specialist	3

Or a Master's degree in curriculum at YSU, plus coursework as follows:

COURSE	TITLE	S.H.
EDAD 6915	Learning, Teaching, and Instructional Leadership	3
EDAD 6947	School Building Leadership: Models and Processes	3
EDAD 6949	Legal and Ethical Issues in Public Administration	3
EDAD 6952	School Finance, Resource Planning, and Management	3
EDAD 6954	Educational Marketing and Community Relationships	3
EDAD 6955	Professional Development and Human Resources	3
EDAD 6975	Introduction to Administration Clinical Experience	3
EDAD 7014	Systematic Use of Information for Continuous School Improvement	3
EDAD 7018	School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies	3
EDAD 7040	Clinical Practice for the Administrative Specialist	3
<b>Total Semester Hours</b>		<b>30</b>

Individuals qualifying for licensure at the Elementary or Secondary level are also issued licensure at the Middle School level.

Candidates must qualify for/hold a valid professional teacher certificate/license and have two years of successful teaching under a professional teaching certificate/license. In addition, candidates must have completed the prescribed number of hours and have an official score report indicating a passing score on the state prescribed administrative licensure examination required for the license.

## Superintendent License (OHIO)

Candidates must hold an administrative certificate or license issued upon the recommendation of YSU or the equivalent thereof as evaluated by the Department of Educational Foundations, Research, Technology, and Leadership at YSU, complete the following course sequence, and meet any other Ohio State Department of Education requirements.

This model shifts the leadership focus from the micro (school site) to the macro (school systems) level and familiarizes prospective superintendents with systems knowledge and perspective on leadership in areas from educational governance to human resource administration to technology and facilities.

COURSE	TITLE	S.H.
EDAD 7024	Collective Bargaining and Systems Issues in Human Resources Administration	3
EDAD 7025	Educational Governance: Advanced Law and Policy Seminar	3
EDAD 7026	Technology and Facilities for Learning Organizations	3
EDAD 7035	The Superintendency and Evolving Ways of Looking at Leadership	3

## PRINCIPAL CERTIFICATE K-12 (Pennsylvania)

Candidates must hold a Master's degree from an accredited program. The professional education program provides evidence that School Principal certification candidates demonstrate knowledge of and competence in working in the elementary and secondary public school settings, including completion of the 33 semester hours listed below, many of which are included in the typical master's degree in educational administration. They must also provide an official score report indicating:

- a score of at least 143 on Praxis II Specialty Test #0411 in Educational Leadership: Administration and Supervision; or
- a 163 score on Praxis Specialty Test #6011 in School Leadership Licensure Assessment (SLLA); and
- satisfy any other Pennsylvania Department of Education Requirements, plus:

Completion of 33 s.h. below (to extent not already taken as part of a master's degree program):

COURSE	TITLE	S.H.
EDAD 6915	Learning, Teaching, and Instructional Leadership	3
EDAD 6931	Leadership in Educational Organizations: Theory to Best Practices	3
EDAD 6947	School Building Leadership: Models and Processes	3
EDAD 6949	Legal and Ethical Issues in Public Administration	3
EDAD 6952	School Finance, Resource Planning, and Management	3
EDAD 6954	Educational Marketing and Community Relationships	3
EDAD 6955	Professional Development and Human Resources	3
EDAD 7014	Systematic Use of Information for Continuous School Improvement	3
TCED 6936	Curriculum, Assessment, and Instruction to Improve Learning	3
SPED 7077	Leadership in Special Education	3
Select one clinical experience course as appropriate to the licensure level being sought:		
EDAD 7022	Field Experience (Elementary 7022E; Secondary 7022S)	3
<b>Total Semester Hours</b>		<b>33</b>

The professional education program provides evidence that each certification candidate demonstrates knowledge and competencies that foster professionalism and ethical practices in school/community settings including:

1. Professional organizations, professional literature, resources and advocacy groups.
2. Integrity and ethical behavior, professional conduct as stated in *Pennsylvania's Code of Professional Practice and Conduct for Educators*; and local, state, and federal laws and regulations.
3. Communicating effectively (orally and in writing) with students, colleagues, faculty, families, paraprofessionals, related service personnel, outside agencies and the community.
4. Recognizing the professional responsibilities of administrators' and teachers' roles as collaborators, team members, advocates, and service coordinators.

## Certification for the Pennsylvania Superintendent's Letter of Eligibility

Candidates must:

- hold a Master's degree from an accredited program;
- have six years of professional service in schools, three of which shall have been in supervisory or administrative positions;
- have an official score report indicating a score of at least 160 on the School Superintendent Assessment Exam #6021;
- all other State of Pennsylvania Department of Education requirements must be met;
- plus completion of the 57 semester hours listed below, many of which may already have been completed as part of the candidate's master's degree in educational administration and principalship certification programs.

COURSE	TITLE	S.H.
EDAD 6915	Learning, Teaching, and Instructional Leadership	3
EDAD 6947	School Building Leadership: Models and Processes	3
EDAD 6949	Legal and Ethical Issues in Public Administration	3
EDAD 6952	School Finance, Resource Planning, and Management	3
EDAD 6954	Educational Marketing and Community Relationships	3
EDAD 6955	Professional Development and Human Resources	3
EDAD 7014	Systematic Use of Information for Continuous School Improvement	3
EDAD 7024	Collective Bargaining and Systems Issues in Human Resources Administration	3
EDAD 7025	Educational Governance: Advanced Law and Policy Seminar	3
EDAD 7026	Technology and Facilities for Learning Organizations	3
EDAD 7035	The Superintendency and Evolving Ways of Looking at Leadership	3
EDAD 7050	Clinical Experience: Superintendency	3
FOUN 6901	Philosophical Analysis of Education	3
FOUN 6902	Sociological Bases of Education	3
FOUN 6904	Introduction to Educational Research	3
FOUN 6905	Educational Challenges in Historical Perspective	3
TCED 6936	Curriculum, Assessment, and Instruction to Improve Learning	3
TCED 6946	Supervision of Instruction	3
TCED 6951	Interpersonal Communications for Educators	3
<b>Total Semester Hours</b>		<b>57</b>

## Post-masters Family Nurse Practitioner Certificate Program

### Department of Nursing

#### Certificate Director

Dr. Valerie O'Dell, Certificate Director  
3132 Cushwa Hall  
(330) 941-2177  
vmodell@ysu.edu

#### Certificate Description

The Family Nurse Practitioner Certificate Program at Youngstown State University is designed to prepare the Post-Masters prepared nurse with opportunities to build upon their current knowledge and obtain additional advanced practice knowledge and skill which will enable them to provide direct primary care to individuals and families. The Family Nurse Practitioner Certificate Program is not a degree program. This certificate program is designed to enhance the professional development of the masters prepared nurse by providing education and training that prepares them for a family nurse practitioner's role.

## Family Nurse Practitioner (FNP) Option Curriculum

COURSE	TITLE	S.H.
NURS 6903	Advanced Pharmacology	3
NURS 6904	Advanced Health Assessment	3
NURS 7003	Role Development	3
NURS 7004	Role Development Practicum	5
NURS 7024	Family and Women's Health	3
NURS 7025	Family and Women's Health Practicum	4
NURS 7026	Infant, Child and Adolescent Health	3
NURS 7027	Infant, Child and Adolescent Health Practicum	5
NURS 7028	Adult and Older Adult Health	3
NURS 7029	Adult and Older Adult Health Practicum	5
<b>Total Semester Hours</b>		<b>37</b>

Students will complete 570 hours of supervised clinical practice as part of this certificate option for national certification eligibility.

## Post-Master's Adult-Gerontology Acute Care Nurse Practitioner

### Department of Nursing

#### Certificate Director

Dr. Valerie O'Dell, MSN Director  
3132 Cushwa Hall  
(330) 941-2177  
vmodell@ysu.edu

Dr. Cynthia Shields, AG-ACNP Coordinator  
2328 Cushwa Hall  
(330) 941-1345  
cmshields@ysu.edu

#### Certificate Description

The Adult Gerontology – Acute Care Nurse Practitioner (AG-ACNP) Master of Science in Nursing (MSN) Certificate program option is designed to prepare the post-masters prepared nurse with opportunities to build upon their current knowledge and obtain additional advanced practice knowledge and skill to enable them to provide direct acute care to adult and older adult individuals and families.

Graduates of this program will be qualified and eligible to take the American Nurses Credentialing Center and/or the American Academy of Nurse Practitioners AG-ACNP certification examinations. Following national certification, graduates are also qualified to be recognized as an adult gerontology – acute care nurse practitioner and granted prescriptive authority through the state Board of Nursing.

COURSE	TITLE	S.H.
NURS 6903	Advanced Pharmacology (unless completed previously)	3
NURS 6904	Advanced Health Assessment (unless completed previously)	3
NURS 7037	Adult-Gero Acute Care 1	3
NURS 7038	Adult-Gero Acute Care 1 Practicum	4
NURS 7039	Adult-Gero Acute Care 2	3
NURS 7040	Adult-Gero Acute Care 2 Practicum	5
NURS 7041	Adult-Gero Acute Care 3	3

NURS 7042	Adult-Gero Acute Care 3 Practicum	5
<b>Total Semester Hours</b>		<b>29</b>

## Workshops

Students who wish to take a workshop for graduate credit but who have not completed the regular College of Graduate Studies admission process will be permitted to register in the College of Graduate Studies as non-degree students. Graduate workshops are graded on an S/U (satisfactory/unsatisfactory) basis.

Certain Youngstown State University workshop courses, upon approval of the graduate advisor, may later be applied to degree work if regular admission to the College of Graduate Studies is obtained and if those courses are part of the degree program. Workshop courses are those specifically designated as such in this catalog or by the Graduate Council.

## Transfer Credits

Transfer hours from an accredited institution will be considered for acceptance at the time of application/acceptance to the College of Graduate Studies. After admission to a program of study, a student who wishes to attend another university to complete coursework toward a YSU graduate degree must complete the Request for Transient Status form available on the College of Graduate Studies website in order to transfer credits to a YSU degree. Every transfer course must either replace a required course of the program or, if not a direct replacement, integrate satisfactorily into the student's program. While transfer of a course might generate excess hours, such hours may not count toward degree requirements unless they replace a complete course in the program.

An accredited institution is one that is approved or accredited by the appropriate regional accrediting agency (e.g., North Central Association of Colleges and Schools) for graduate-level work.

Credits for courses in which grades of S or CR were received will not be transferred. The number of transfer credits to be accepted in each case will be determined by the graduate dean upon evaluation and recommendation by the department of the student's major. It is the responsibility of the student to initiate a request for the approval of transfer credits. Transfer hours are not included in the calculation of the student's cumulative grade point average.

In general, workshop format courses are not acceptable for transfer. Professional development workshops are not acceptable. However, if the workshop fulfills the following requirements, credit may be considered for transfer to Youngstown State University:

- The workshop must be taught as part of a master's degree curriculum of the university at which the course was taken.
- The workshop should consist of a minimum of 12.5 contact hours per semester hour.
- The workshop must include exposure to the disciplinary research literature appropriate to the course.
- The workshop must include the opportunity for outside work, such as term or research papers or other major assignments appropriate to a graduate course.
- Credits for courses in which grades of S or CR were received will not be transferred.

## Graduate Certificate and Degree Programs

The following guidelines indicate the **maximum** credit hours of graduate work completed at other accredited institutions that **may** be applied toward a graduate certificate or degree at YSU, provided the student earned a grade of A or B in such courses:

- Up to 3 semester hours (4 quarter hours) for programs requiring 12-15 semester hours
- Up to 6 semester hours (8 quarter hours) for programs requiring 16-29 semester hours
- Up to 9 semester hours (12 quarter hours) for programs requiring 30-44 semester hours
- Up to 12 semester hours (16 quarter hours) for programs requiring 45-59 semester hours
- Up to 15 semester hours (20 quarter hours) for programs requiring 60-89 semester hours
- Up to 18 semester hours (24 quarter hours) for programs requiring 90 or more semester hours

## Military Credit

Graduate courses, approved by the American Council of Education to be equivalent to a graduate level course, will be considered by the graduate program to determine if transfer credit will be granted.

## MBA Credit from Chinese University of Petroleum

The MBA program may accept up to 14 hours of transfer credit from the Chinese University of Petroleum.

## Registration Advisement

Before initial registration, the student would be well advised to consult with the faculty member in charge of the program to which the student has been admitted or with an assigned advisor for advice in developing a program of study that leads to the desired degree. The ultimate responsibility for selection of graduate courses, based upon the requirements of the student's program as set forth in the Catalog, remains with the student. Continued consultation with the advisor is encouraged. Because of the nature of certain programs, an advisor may require consultation before each registration.

## Registration Procedure

All Youngstown State University class registration takes place online through the MyYSU Portal (<http://my.yzu.edu>). Registration days and times are determined by a student's classification and earned hours completed. Registration dates and appointment times for current students are determined by the Office of the Registrar and available to view on the MyYSU Portal under e-Services for Students - Important Dates. All significant dates are also listed on the Registrar's website and on the MyYSU Portal announcements for each specific semester. Registration requires that the student agrees to pay all tuition and fees associated with the registration. Failure to withdraw during the 100% refund period does not release the student from his or her financial obligation incurred by registration. Assistance with all registration related functions can be found at the Student One Stop located on the second floor of Meshel Hall (Phone: (330) 941-6000, Email: [onestop@ysu.edu](mailto:onestop@ysu.edu)).

## Change of Registration

Students may change their registration up to the last day to add a class. All dates are available on the /MyYSU/ Portal.

Withdrawal from a course must be accomplished through the online registration system. Failure to attend class or notification to an instructor is insufficient. A grade of F will be recorded unless a student officially withdraws.

## Complete Withdrawal of Registration

The student who wishes to withdraw from all classes in a particular semester must also process this through the /MyYSU/portal (<http://my.yzu.edu>). If a student withdraws from all classes during the first two weeks of the semester,

the academic record will contain the statement, "Student completely withdrew during the first two weeks of the semester."

## Cross-Registration of Courses Among Northeast Ohio Public Universities

Under specific circumstances, a graduate student may take one or more graduate courses at Cleveland State University, Kent State University, The University of Akron, NEOMED, Ohio University, or Youngstown State University without registering as a transient student at the university delivering instruction. The course should contribute to the student's program of study and be unavailable when needed to complete the student's program at the student's home institution. The student must be in good standing (GPA > 3.0) and be within the time limits for completion of the program. The graduate program unit at the student's home institution will establish a graduate special topics or independent study course identification capable of being tagged by the home university with a title that will correspond to the course title at the host university and with the initials of that university (i.e., CSU, KSU, or UA). Registration for such a course is controlled by the home department and will be permitted only upon receipt of the Approval for Acceptance of Course Work at Northeast Ohio Public Universities form, which is available on the graduate school's website: [www.yzu.edu/gradcollege](http://www.yzu.edu/gradcollege) (<http://www.yzu.edu/gradschool>). Any department that has no established special topics or independent study course may not participate in this cross-registration program.

## Time Limit

### Master's Degree

All coursework, including transfer credits, offered in fulfillment of the minimum credit-hour requirement for the degree, all comprehensive exams, and thesis (if required) must have been taken within the six-year period immediately preceding the date on which the last requirement is completed.

### Doctoral Degree

All post-master's coursework, including transfer credit, must be taken within an 11-year period.

## Matriculation to Doctoral Candidacy

Doctoral students shall be granted a six-year period to successfully complete the general examination and acquire candidacy status.

## Doctoral Candidacy to Final Dissertation Copy

Doctoral candidates will have five years from the acquisition of candidacy status to file the final dissertation copy. Failure to meet this time frame will result in cancellation of the candidacy. With the approval of the dissertation advisor and the College Graduate Studies Committee, the student may take a supplemental general examination to reacquire candidacy. If the student passes the supplemental general examination, he or she is readmitted to candidacy and must complete the dissertation within two years. The supplemental general examination may be repeated once.

In special cases, with appropriate justification by the student, the dean of The College of Graduate Studies may grant an extension of the coursework time limit upon the written request of the chair or program director of the department of the master's or doctoral study.

Courses approved upon entering a graduate program remain active for the length of time the student remains current in their program.

## Other Regulations

### Graduate Courses

Graduate credit may be earned in the following courses:

- 8000-level courses, which are for doctoral students only
- 6900- and 7000-level courses, which are open to graduate students (see Graduate Courses for Undergraduates). At least one-half of the credits applied toward the master's degree must be earned in courses in the 6900- and 7000-series.
- Upper-division undergraduate swing courses (5800-level), in which the student may enroll for graduate credit only

Only certain upper-division undergraduate courses may be taken for graduate credit. Those in this category are listed in the Courses section of this catalog. To earn graduate credit in an upper-division course, the student must be admitted to the College of Graduate Studies before the course is taken. Graduate students in undergraduate courses that offer graduate credit will be required to pursue the subject matter in greater depth than the undergraduate student.

Graduate students may register for 4000-level or lower courses, but these courses do not apply toward the requirements of a graduate degree. Although the grades received and semester hours for such courses appear on the student's record, the hours and quality points are not included in the student's cumulative totals.

### Seminar

A seminar generally consists of a group of advanced students studying a subject under a professor, each making some pertinent contribution and all exchanging results through informal lectures, reports, and discussions.

## Research Using Human or Animal Subjects

Research using human or animal subjects requires prior approval by the appropriate committee (YSU Human Subjects Research Committee or YSU Institutional Animal Care and Use Committee). Assistance with the process of obtaining approval may be obtained from the Office of Grants and Sponsored Programs.

## Thesis or Dissertation

Certain programs accept or require a thesis or dissertation as partial fulfillment of the requirements for the degree. Students are asked to initiate an online form as soon as thesis committee is identified. Students follow the style manual used by the field as determined by the department. The deadline for presenting one copy on regular paper and all signed signature pages on acid-free cotton bond paper and the Originality of Thesis/Dissertation Verification form for approval to the Dean of College of Graduate Studies is:

Fall and Spring semesters: Dissertations submitted by the Monday of the 14<sup>th</sup> week of class. Theses submitted by the Monday of the 15<sup>th</sup> week of class.  
Summer semester: Dissertations submitted by the Monday of the 10<sup>th</sup> week of the full term. Theses submitted by the Monday of the 11<sup>th</sup> week of the full term.

Additional thesis and dissertation presentation information is available on the College of Graduate Studies website and individual departments. Research using human or animal subjects requires prior approval by the appropriate committee (YSU Human Subjects Research Committee or YSU Institutional Animal Care and Use Committee).

The oral defense is a public presentation and must be advertised within the college.

## Second Master's Degree

A student who has a master's degree from YSU and desires a second master's degree must earn a minimum of 12 semester hours of credit in addition to the total that the student had when requirements for the first degree were completed, and he or she must complete the requirements for another graduate program. Students with a master's degree from another university will be limited to the maximum of transfer credit hours as determined by the transfer credit policy.

## Interrupted Enrollment

Students who interrupt their attendance for three or more semesters (one calendar year) must apply for readmission as former students at least two weeks before late and final registration. Graduate students who fail to take courses or otherwise pursue their graduate education for one year will be readmitted only under regulations at the time of reapplication and after review by the department for approval of the readmission.

## Full-Time Status

Full-time students carry nine or more semester hours for credit. Graduate students who complete less than nine hours per semester may lose eligibility for federal financial aid as a full-time student.

## Reduced Load for Employed Students

The College of Graduate Studies recommends that the employed student carry less than a full academic load as determined in consultation with his or her academic advisor.

## Graduate Courses for Undergraduates

The Application by Undergraduate to Enroll in a Graduate Course form is available in the College of Graduate Studies office.

An undergraduate student who is enrolled as a senior at Youngstown State University or at another member institution of the Academic Alliance (currently including Lake Erie College, Slippery Rock University of Pennsylvania, Thiel College, Walsh University, and Westminster College) or another institution of higher education with which YSU has a formal academic agreement at the graduate level, and who has an grade-point average of at least 2.7 may enroll in 5800-, 6900- and 7000- level graduate courses, provided the total schedule for the semester (including undergraduate courses) does not exceed 15 semester hours. Before registering for courses, the student must have the approval of the Graduate Program Director in the program where the credit will be applied, the course instructor, and the Dean of The College of Graduate Studies. The credit earned may be used for graduate credit at YSU only after the student is admitted to the College of Graduate Studies and the credit is accepted by the department in which the student continues graduate work. (Such coursework intended for graduate credit cannot count toward fulfillment of the requirements for a bachelor's degree at Youngstown State University.) The maximum amount of such credit that will be accepted at Youngstown State University is 9 semester hours.

Students in accelerated programs will be accommodated to allow completion of degree requirements as specified in the program curriculum.

## Academic Standards

A cumulative grade point average of at least 3.0 (on a 4.0 scale) is required for graduation. All graduate courses taken at YSU are included in the grade point average calculation (see Grading System for grades less than C). Good academic standing for graduate students is a cumulative grade point average of at least 3.0 (on a 4.0 scale) for all graduate credit courses taken at YSU.

## Satisfactory Academic Progress

Satisfactory academic progress at the graduate level is maintained by satisfying the following criteria:

- A degree-seeking graduate student must maintain a minimum grade point average of 3.0 (on a 4.0 scale). Any required course grade of D or F must be repeated and passed with a grade of C or better.
- A degree-seeking graduate student must successfully meet the requirements, including the time requirement, of all comprehensive examinations of the degree program.
- A degree-seeking graduate student must complete with a passing grade any thesis requirements (or the equivalent) of the degree program.
- A non-degree graduate student must maintain a minimum grade point average of 3.0 (on a 4.0 scale).

For degree programs requiring up to 39 semester hours for completion, a student may count no more than six semester hours of coursework with a grade of C toward the minimum graduation hour requirements. For students in programs requiring 40 semester hours or more for completion, no more than nine semester hours of coursework with a grade of C may count toward the minimum graduation hour requirement.

## Academic Suspension

A graduate student who is not maintaining satisfactory academic progress as determined by the graduate academic program director or department chairperson and graduate dean may be excluded from registration and dropped from the program in which he or she is enrolled. Such action constitutes academic dismissal from the College of Graduate Studies.

Academic suspension for a student with regular admission is automatic if:

- The semester grade point average is below 3.0 after one semester student registered "not in good standing";
- The student fails to pass a comprehensive exam after three tries.

A provisionally admitted graduate student must maintain a minimum grade point average of 3.0 (on a 4.0 scale). A provisional student whose GPA falls below a 3.0 will immediately be dismissed.

Any student in non-degree status whose cumulative grade point average drops below the minimum (3.0) will be prohibited from enrolling in further graduate coursework.

Registration for any session or continuous registration during a full summer counts as one semester for these purposes.

A graduate program may utilize additional academic standards to determine satisfactory academic progress and/or standards for academic suspension; however, such standards must be distributed in writing to all graduate students in the program and must be filed and approved by the dean of The College of Graduate Studies.

## Readmission Procedures

- Under exceptional circumstances and with the approval of the Dean of The College of Graduate Studies, a program may readmit a suspended student. In such cases, the normal six-year limitation on coursework shall be applied.
- Graduate students suspended for failing to maintain satisfactory academic progress may appeal their suspensions within one year in writing to the Graduate Council. The decision of the Council is final.
- After a period of one year, a graduate student who has been suspended for academic reasons may reapply to the College of Graduate Studies in order to begin a new degree program or to pursue studies in non-degree status. A readmitted graduate student is not permitted to register for any courses offered by the program from which he or she was academically suspended.

## Grading System

The following grading system is used in reporting a final evaluation of the work of graduate students in courses or thesis research: A, B, C, D, and F. The grade point equivalents are 4, 3, 2, 1, and 0, respectively. A graduate student may not elect to take a course under the credit/no credit option.

Grades of D and F carry no graduate credit but will be used to determine the student's grade point average. Failure will normally be indicated by a D; a grade of F indicates that the student has not achieved even a minimum grasp of the essentials of the course. A student has the privilege of repeating a course once, but the repetition is treated merely as another course, along with the first, in calculating the student's grade point average. Any required course grade of D or F must be repeated and passed with a grade of C or better.

Upon transfer to a new graduate program, a student with concurrence of the advisor, program director and department chair, may petition to the dean of Graduate Studies for the exclusion from the calculation of the student's grade point average previous courses that do not apply to the new degree program. The grades will be removed from the GPA calculation but will remain on the transcript. In no case may courses be excluded from the calculation of the grade point average once a graduate degree has been conferred.

Graduate workshops are graded on an S/U (satisfactory/unsatisfactory) basis.

An incomplete grade of I may be given to a student who has been doing satisfactory work in a course but, for reasons beyond the control of the student and deemed justifiable by the instructor, had not completed all requirements for a course when grades were submitted. A letter grade may not be changed to an I (Incomplete) after the term has ended and grades have been recorded. A written explanation of the reason for the I must be forwarded by the instructor to the Office of Records for inclusion in the student's permanent record, with copies to the student and department chairperson. For fall term courses, the final date to complete an I will be:

- March 1 of the following term;
- for spring term courses, September 1;
- for all summer term courses, October 1.

With approval by the instructor and the dean of the college where the course is taught, the completion date may be extended. Courses not completed by the appropriate date will be converted to an F.

A grade of W represents a withdrawal properly processed at any time from the end of the full-refund period through the last day to withdraw with a W (as published in the Academic Calendar for each semester). Withdrawal after the designated date (or an improper withdrawal) is recorded as F. Withdrawal thereafter (or improperly done, at any time) is recorded as F. If the grade resulted from circumstances over which the student had no control, the student may petition the dean of the College of Graduate Studies for a late withdrawal. Any grade of F assigned because of absence may be reviewed upon petition to the dean of The College of Graduate Studies. Where withdrawals change the student's status from full-time to part-time, the student immediately forfeits any privileges contingent upon full-time status, and all interested parties will be notified by the appropriate university officials.

In the case of thesis work, independent study, and other courses where research or scholarship is still in progress at the time grades are to be reported, a PR may be reported in place of a conventional grade. The PR grade is intended to indicate that it is the nature of the scholarship rather than the student's ability to complete the work that is preventing the issuance of a conventional grade. A PR grade must be converted to a regular grade prior to graduation. However, a PR grade can remain on the student's permanent record if the course is not needed. A PR grade in and of itself will not prevent a student from graduating.

AU signifies that the student was enrolled in the class as an auditor.

## Grade Changes

Applications for grade changes may be secured from the Office of Records, must be completed by the instructor, and must contain the signature of the dean of The College of Graduate Studies unless the change is from incomplete (I) or progress (PR). All grade changes must be submitted to the Office of Records by the dean or instructor; they will not be accepted from the student. In no case may a grade be changed for the purpose of changing the grade

point average of the completed degree after a student has received a graduate degree.

## Intrauniversity Transfer (Change of Curriculum)

A student must request in writing a transfer from one graduate program to another. A transfer is not complete until an advisor in the program to which the student is transferring has been appointed and has accepted the student as an advisee, and when the change has been reported to and approved by the dean of The College of Graduate Studies. In such cases of transfer, courses taken in the original curriculum that also apply toward the degree in the new curriculum will be accepted. The student's academic record and grade point average will reflect all graduate courses taken.

## Auditing Courses

A graduate student may register for and attend any course as an auditor. An auditor is not held responsible for the regular classwork, class attendance, and preparation of assignments and receives no credit for the course. The student pays the regular tuition as well as any other applicable fees for the course(s) audited. Assistantships and scholarships do not cover audited courses. Audited courses are carried in a student's load only for fee purposes. A student who has registered for a course for audit may not change that status to credit after the last day to add a class. An AU may be given only to a student who has begun a course as an auditor or who has changed status to that of auditor on or before the last day to add a class.

## Foreign Language Proficiency Examinations

The Department of Foreign Languages and Literatures administers proficiency examinations in the following languages:

- French,
- German,
- Italian,
- Latin,
- Russian, and
- Spanish.

The graduate student should consult the major department to learn specific degree requirements. A grade of pass or fail on the proficiency examination will be registered with the College of Graduate Studies.

It is the responsibility of neither the University nor the Department of Foreign Languages and Literatures to tutor students or to recommend tutors for these examinations.

## Commencement

The Graduation application must be completed by stated deadline of the semester the student intends to graduate. Submission of the graduation application is the student's responsibility. There are two graduation ceremonies each year:

- fall commencement at the end of the first semester in December and
- spring commencement at the end of the second semester in May.

Please refer to the "Special Purpose Fees and Service Charges" list as well as the section titled "Other Fees" for information about the graduation fee. The Graduation application can be accessed through *My YSU*.

## Posthumous Degrees

A deceased student who was enrolled in an undergraduate, graduate or doctoral degree program at the University at the time of his/her death may be recommended for a posthumous degree by a faculty member, department chairperson, or dean of the appropriate college or academic unit. A



recommendation must be in writing and proceed, respectively, for approval as follows:

- faculty member to chairperson,
- chairperson to Dean,
- Dean to Provost and
- Vice President of Academic Affairs.

The Provost and Vice President of Academic Affairs will notify the Registrar if the recommendation is approved.

In order for a posthumous degree to be awarded, a student must be in good academic standing and have substantially completed the applicable degree requirements. Substantial completion means:

- For undergraduate degrees and master degrees without a thesis requirement, the student must be within one semester of completing all coursework and degree requirements.
- For doctoral programs and master degree programs with a thesis requirement, the student must be within one semester of completing all coursework and degree requirements; and the student must have completed a full draft of his/her thesis to the satisfaction of his/her thesis chairperson.

If approved, the appropriate Dean will notify the immediate family of the student who may choose to have the diploma presented at commencement or in a private ceremony. If the diploma will be presented at commencement, it will occur at the next feasible commencement.

Diplomas for posthumous degrees will be identified as "Awarded Posthumously."

## Catalog of Entry

The *Undergraduate Catalog* in effect when a student first enrolls at the university or any one subsequent catalog will be the guide to graduation requirements, provided the student is in continuous attendance and does not change majors.

When a student changes majors, the guide to graduation requirements will be the catalog in effect at the time of change or any one subsequent catalog. Exceptions to this rule include the requirements for the minor and general education requirements. Unless the minor is specified by the new major, a student who has been in continuous enrollment and changes majors can fulfill the requirements for a minor by using the criteria in effect in either the catalog of entry or the catalog in effect at the time of the change in major. See the section on General Education Requirements for the relevant policy on general education.

Readmitted students will use the catalog in effect at their last readmission or any one subsequent catalog as the guide to graduation requirements. Any exceptions to requirements must be approved by the student's department chair and/or college dean. The University reserves the right to change course offerings and academic requirements.

## Visiting Graduate Students

A visiting graduate student is defined as one who is completing graduate academic work at Youngstown State University for credit at another university. All visiting graduate students shall be required to be granted visiting student status while engaged in academic work at YSU. Applications for visiting student status are available from the College of Graduate Studies. Visiting student status shall provide access to the following campus resources (fees may be required):

- a YSU identification card;
- access to campus buildings and laboratories, including computer labs;
- use of library facilities; and

- campus parking.

## The Code of Student Rights, Responsibilities, and Conduct

Youngstown State University is "a student-centered institution committed to the education, development, well-being, and success of students of all ages and from all walks in life. In concert with our mission to help students grow intellectually, we strive to foster their personal, social, emotional, and career growth, as well as their capacities for lifelong learning, civic responsibility, and leadership..."

As a campus community, we expect all conduct to be rooted in integrity, mutual respect, and civility. We:

- value ethical behavior in scholarly and other endeavors;
- believe in the dignity and worth of all people;
- strive to foster an appreciation of, and respect for, differences among the human race; and
- celebrate the diversity that enriches the University and the world." (Excerpt from YSU core values.)

As a member of a higher education community, students have an obligation to conduct themselves in a manner that is compatible with the University's purposes as an institution of higher education. Each student is expected to be fully acquainted with all published policies, procedures, and regulations of the University and is held responsible for compliance with them. All members of the University community are expected to assume responsibility for creating an environment conducive to the educational mission and purpose of the University.

The policies and regulations as outlined in *The Code of Student Rights, Responsibilities, and Conduct* (hereafter referred to as *The Code*) have been established to ensure a positive educational experience for every student. *The Code* serves as an official University document that outlines conditions and regulations considered essential to the effective functioning of the University.

The student conduct process at Youngstown State University adheres to procedural due process and is intended to be part of the educational process at the University. This student conduct process provides a forum for the impartial and expedient resolution of misconduct in the University community and encourages students to live responsibly and be accountable for their actions. The student conduct process is based on the University's commitment to developing integrity, respect, and responsibility among all students. *The Code* is available online at the YSU website or in hard copy from the Office of Student Life.

## Student Fees and Charges

See Student Fees and Charges below for current figures.

## Payment of Tuition and Fees

Student accounts are billed each semester. Tuition statements are sent out electronically, and an e-mail is sent each time a bill is issued. Current account information – including charges, payments, and refund amounts – is available online at [ysu.edu/viewmybill](http://ysu.edu/viewmybill). Tuition statements may also be printed from this site

Students are expected to have their student accounts in a paid status prior to attending the first class meeting for a term. In order to have a student account in a "paid status," students must be either paid in full for the term or officially signed up and paid the first payment on the approved payment plan. Late and/or partial payments are subject to late payment fee assessment.

## You are strongly encouraged to pay your bill online at [ysu.edu/viewmybill](http://ysu.edu/viewmybill).

You may also make payment:

\* in person at the payment windows on the second floor of Meshel Hall.  
**Cashier Hours are Monday through Friday 10:00 a.m. - 2:00 p.m.**

\*via the payment drop box also located on the second floor of Meshel Hall (check only, no cash) or

\*by mail to: Youngstown State University, Attention Office of University Bursar, One University Plaza, Youngstown, OH 44555 (check only, please do not mail cash). Please make checks payable to Youngstown State University.

You may pay by online by echeck (no additional charge) or with Visa, MasterCard, or Discover. Effective July 1, 2012, there is a 2.75% convenience fee minimum of \$3.00 for payments made by credit card.

If you deliver a check in person, mail it, or place it in the payment drop box, you authorize us to convert that check to an electronic Automated Clearing House (ACH) transaction. That check will then appear on your monthly bank statement as an Electronic Debit. If you do not wish to have your paper check converted to an ACH, you must present it in person or select an alternative payment method (for instance, credit card).

A payment plan is also available that will allow you to spread your payments out over a longer period. Payment plan enrollment must be processed online and requires an initial payment at the time of enrollment. There is a fee for enrollment in the payment plan, and late payments are subject to late payment fee assessment.

Students are solely responsible for timely payment of their tuition and fees. In the event that the account becomes past due, the University reserves the right to withhold services (e.g., transcripts, diplomas, registration, and other University services) until the past-due balance is paid in full. If full payment cannot be obtained, then the delinquent balance must be turned over to the Ohio Attorney General's Collection Enforcement Office for collection and it will be reported to the Credit Bureau. Once an account becomes delinquent, the student will be required to pay in advance of registering for subsequent terms. An account turned over to the Attorney General will incur interest and collection expenses which must be paid before any of the adverse sanctions can be removed.

Your enrollment at the University creates a contract between you and YSU. If you choose not to attend the University, you must officially withdraw from all courses by the 14th day to receive 100% refund or reduction of charges (see refund policy below). All days of the week are counted, including weekends and holidays, to determine the 14th day. Please be advised that all University offices are not open on weekends and holidays; thus, online withdrawal may be required.

If you decide to withdraw from the University once you have enrolled, you must access the registration functions through the MyYSU Portal.

## Fees

The Board of Trustees of Youngstown State University has pledged to make every effort to keep the required fees as low as is consistent with providing quality education. It is intended that fees not be adjusted more often than annually and that fee changes be announced in the spring or early summer. The Board of Trustees does, however, reserve the right to change any fee, charge, or fine without notice if conditions warrant.

See Students Fees and Charges. An explanation of each follows.

### Tuition

The sum of the instructional fee, the general fee, and the information services fee constitutes tuition.

## Instructional Fee

This fee is assessed to all students each term. The rate is per academic semester hour of credit for one to 12 credits or for more than 18 credits; it is a flat rate for students registering for 12 to 18 credits during one term. Students registering for 18 or more credits pay the flat rate plus the per-credit rate for each credit over 18. This fee supplements the state subsidy and is a source of revenue for the University's educational and general fund.

## Audited Courses

Students may audit courses (i.e., register to take a course without receiving credit). The fee for auditing a course is the same as if the course were taken for credit.

## General Fee

This fee is also assessed to all students each term; the rate depends upon the number of credits registered for. This fee is for non-instructional services such as Kilcawley Center, intercollegiate athletics, intramural sports, performing artists and lecture programs, student government..

## Non-Resident Tuition Surcharges

As noted above, all students pay the instructional fee, the general fee, and the information services fee. Those students who are not legal residents of Ohio must pay a surcharge in addition. Students who are residents of the Affordable Tuition Advantage area pay a lesser surcharge than do students who are legal residents of other states and/or areas. The Affordable Tuition Advantage area includes the counties of Chautauqua, New York; Armstrong, Clarion, Fayette, Forest, Greene, Indiana, Jefferson, and Warren counties in Pennsylvania; and Brooke, Hancock, Marshall, and Ohio counties in West Virginia. Also included Pennsylvania counties of: Allegheny, Beaver, Butler, Crawford, Erie, Lawrence, Mercer, Venango, Washington, and Westmoreland.

## Information Services Fee

This fee is charged to all students each term. It is applied on a per-credit basis to provide information technology infrastructure and services across campus, including the new Student Information Systems, wireless connectivity, classroom technology, and a continuous strengthening and securing of the computing and networking environment. It provides support for technology enhancements and initiatives contained within the IT Master Plan, supporting the vision to keep pace with an evolving, interactive, student-centered and collaborative electronic learning environment.

## Course Book and Supply Fee

This fee represents the cost for an eBook used in designated course(s).

## College Fee

This fee is designed to recognize the differential cost of instruction among colleges. Examples of use include research instrumentation, enhanced teaching equipment, specialized software, specialized information resources (databases), maintenance and repair of capital equipment, technical and laboratory personnel support, and lab and instructional space upgrades.

## Credit by Examination Fee

A fee is charged for each course for an individual examination provided by an academic department to determine whether a student can be given academic credit for his or her knowledge of the course material. The fee must be paid before the test can be taken. This fee is charged on a per-credit basis.

## Graduation Fee

This nonrefundable fee is assessed when students apply to graduate to cover costs associated with graduation. If a student defers graduation and has paid the fee, the payment remains valid for the two academic terms following the term of application. Should a student graduate with more than one degree at a time, the fee will only be charged once.

## GRADUATE CONSORTIAL PROGRAM MFA

The Northeastern Ohio Universities Master of Fine Arts in Creative Writing is offered in a consortium of the four public universities of Northeast Ohio: the University of Akron, Cleveland State University, Kent State University, and Youngstown State University. The partnership program aligns with the missions of all four institutions to offer graduate programs that meet clearly defined regional needs. The hourly tuition rate is calculated annually based on the highest general fund and the highest instructional fee between the four institutions, approved by the fiscal representatives, and approved by the boards of trustees at each institution. The tuition collected supports the administration and the instructional offerings of the program through a revenue sharing model.

## GRADUATE CONSORTIAL PROGRAM MPH

The Consortium of Eastern Ohio Master of Public Health (CEOMPH) Program is provided cooperatively by the University of Akron, Cleveland State University, Northeast Ohio Medical University, and Youngstown State University. Rates of current graduate students for each partner, the rates of other MPH programs and annual increases are considered each year. Tuition and fees are recommended annually by the Fiscal Issues Committee and approved by the Governing Counsel and the boards of trustees at each participating institution. The tuition collected supports the administration and the instructional offerings of the program through a revenue sharing model.

## GRADUATE WORKSHOPS SPECIAL TUITION RATES

The workshop rate is charged for workshop credit for courses taught off-site and by approved and qualified faculty who are paid by another agency.

## NURSE ANESTHETIST PROGRAM SURCHARGE

This fee is charged to students in the CRNA track of the M.S.N. degree to cover costs deemed necessary for specialized equipment and training pertinent to training in anesthesia. The partnership between Youngstown State University and St. Elizabeth Health Center School for Nurse Anesthetists outlines this arrangement. The Board of Directors of the School sets this fee and it is approved by the board of trustees.

## Honors College Fee

This fee is used to offset programmatic funding needs such as Honors College Retreat, Academic Journal, student travel to the National Collegiate Honors Council annual conference and to support co-curricular, senior medallions, volunteer, and community service projects. The fee may also be used for facility needs.

## COLLEGE CREDIT PLUS INSTRUCTIONAL FEE

Fees for CCP are aligned with the state of Ohio's default CCP tuition structure. The fee the district pays to YSU is calculated based upon a percentage of the State ADM, which is paid to the district by the State of Ohio. There is a "floor", "middle", and "ceiling". At YSU, the State default floor is the charge for classes taught in the high school by credentialed high school teachers. The middle rate is for classes taught at the high school by paid YSU faculty. The ceiling is the tuition for classes taught online or on campus. The fee is usually paid by the school district if the course is taken for both high school and college credit, though there are exceptions. If the student only wants college credit, they self-pay.

## YOUNGSTOWN EARLY COLLEGE

Early College High School students pay a reduced fee in virtue of the school district's limited resources and the University and community's interest in promoting college attendance and completion for first-generation students in Youngstown.

## PENGUIN JUMP START

This program allows incoming freshmen who meet the established criteria to take up to six semester hours of specific courses at a significant tuition

reduction during the summer term preceding their first fall semester. This enables them to get a jump start toward graduation.

## DISTANCE EDUCATION LEARNING FEES

As noted above, all students pay the instructional fee, the general fee, and the information services fee. Those students who are not legal residents of Ohio must pay a surcharge in addition. This fee is to offset the cost of technology and support needed to support fully online programs.

## Late Add Fee

Late adds will be granted on an exceptional basis only and there will be a late-add fee assessed for each course added after the add deadline. This fee is nonrefundable and cannot be appealed.

## Late Application for Graduation

Application for Graduation must be submitted within the first three weeks of the term. Applications submitted after this date will be assessed a non-refundable late fee.

## Late Payment Fees

Payment of a bill received after the due date results in assessment of a late payment fee. All fees and charges billed must be paid in full. Partial payments will result in assessment of a late fee. Payment plan participants who do not pay their scheduled payment amount by the due date are also subject to assessment of a late payment fee.

## Late Registration Fee

A fee is charged a currently enrolled student who fails to register for the next term at the assigned time and later registers at the time assigned new or returning students.

## Transportation Fee

This fee is charged to all students each term registered for six or more credit hours in courses designated as on-campus. This fee will allow students to receive a parking permit (at no additional charge). Students must request the permit via MyYSU portal; the permit will give them unlimited access to shuttle service and admission into designated parking areas. The transportation fee supports the operating and maintenance costs of campus parking facilities, roadways and sidewalks, as well as student shuttle service. The fee does not guarantee an available space in any particular lot. Some facilities are restricted (e.g. for students only, for faculty and staff only, or resident hall residents only). The current Driving and Parking Regulations pamphlet and parking lot map should be consulted. The transportation fee is refundable only if the student has less than 6 credit hours (in courses designated as on-campus courses) by the last day of the 100% tuition refund period AND they return the permit access card and validation sticker within five days of either the withdrawal date or the last date of the 100% tuition refund period- whichever is earlier. The transportation fee is non-refundable after the 100% tuition refund period and cannot be appealed.

## Optional Parking Fee

This fee is optional each term for students registered for less than six credit hours in courses designated as on-campus. This fee is charged, upon request of the parking permit via MyYSU portal – and will appear on students' accounts as a "parking fee." The "optional" fee and parking permit will also allow the student to have unlimited access to shuttle service. Students requesting the parking permit after the 14th day of the term will not have the permit issued or shuttle services made available until payment of the fee. The fee supports the operating and maintenance costs of campus parking facilities, roadways and sidewalks, as well as student shuttle service. The fee does not guarantee an available space in any particular lot. Some facilities are restricted (e.g. for students only, for faculty and staff only, or resident hall residents only). The current Driving and Parking Regulations pamphlet and parking lot map should be consulted. The fee is refundable only if the student returns the permit access card, validation sticker, and has less than six credit hours in courses designated as on-campus within five days of either the

withdrawal date or the last date of the 100% tuition refund period, whichever is earlier. This fee is non-refundable after the 100% tuition refund period and cannot be appealed.

A daily fee is charged anyone without a permit who wishes to park in facilities designated for cash business. Persons other than employees and students who are on campus for a short period of time to conduct business may park in one of the visitors' lots if space is available.

## Performance Music Fee

This fee is charged in addition to the regular tuition. It is assessed students taking music lessons and is applied on a per-credit basis.

## Processing/Matriculation Fee

All first-time students will be assessed a non-refundable processing/matriculation fee to cover costs incurred for the use of University facilities, the development of publications, and other program/registration costs. Students are able to pay the fee by using the invoice located in their orientation packet or it will be billed electronically. If a student decides not to attend the University, he/she is still responsible for paying this fee.

## Proficiency Examination Fee

A fee is charged for an examination provided by an academic department to determine a student's proficiency for some reason other than assignment of academic credit. If academic credit is to be awarded, the credit by examination fee applies and not this fee.

## SPECIAL PURPOSE FEES

- Bachelor of Science in Engineering
  - This program fee supports the office of professional practice which coordinates internships and co-ops.
- Bachelor of Arts in Telecommunications Studies
  - The Telecommunication Studies program fee is charged to offset the cost of production facilities and equipment, including a television studio, field equipment and other production technology. The fee is used to upgrade equipment to current industry standards.
- Honors College Fee
  - This fee is used to offset programmatic funding needs such as the Honors College student retreat, Academic Journal, student travel to the National Collegiate Honors Council annual conference, and support for co-curricular, senior medallions, volunteer, and community service projects. The fee maybe also used for facility needs.
- Master of Early Childhood Education
  - This fee covers expenses of recruiting and delivering instruction.
- MBA Program Fee
  - The MBA Program Fee supports the design and delivery of the MBA program, and MBA activities and services that contribute to the success of MBA students.
- Performance Music Fee
  - The Music Performance Fee This fee offsets the cost of maintaining the programs and facilities of the Dana School of Music including the purchase and repair of equipment, rental of performance venues, recording and archiving of Dana events, and other expenses. The performance fee helps us provide the best possible experience for our students and follow standards set by the National Association of Schools of Music. This program fee is charged in addition to regular tuition.
- BCOE Regional Delivery Fee
  - A program fee used to cover expenses of delivering programs to cohorts studying at off-campus locations.

- Studio Art

This fee enables the Department of Art to strategically plan for essential equipment upgrades and investment in new technologies that drive development and implementation of innovative curriculum including the purchase of large and costly equipment and digital technologies. As new processes and directions emerge in contemporary art, the Department of Art must introduce new and innovative instructional art making options into the curriculum to remain enrollment competitive with regional and national peer institutions.

## Technology/Laboratory Materials Fee

This fee is designed to partially offset expenses associated with courses that make use of supplies, equipment or personnel support beyond that associated with typical lecture courses. Examples include chemical supplies, engineering equipment, computers, software, and lab monitors. In addition, the First Year Materials Fee is designed to partially offset expenses associated with Campus Sexual Violence Elimination (SaVe) Act training, Career assessment materials and training sessions with Career Services, Financial Aid materials and training sessions with Financial Aid. Content and programming for a common intellectual experience including speakers and campus-wide events, Other materials, handouts, and software related to common elements of first year experience courses.

## Testing Fees

The University Office of Testing supervises a variety of special tests used for admission to college, graduate, or professional schools. The fees are established by the agencies responsible for the tests. Students are advised to contact the Testing Office for information and to make reservations.

## Transfer Matriculation Fee

All new transfer students will be assessed a non-refundable processing/matriculation fee to cover costs incurred for the use of University facilities, the development of publications, and other program/registration costs. Students cannot prepay this charge; it will be billed electronically. If a student decides not to attend the University, he/she is still responsible for paying this fee.

## Undergraduate Application Fee

This fee is charged to every new applicant for admission. This fee is non-refundable. Former students do not have to pay to apply for re-admission.

## Service Charges

### Computer-Based Placement Re-Test Fee

A nonrefundable fee is charged each time a computer-based placement test is retaken.

### Identification Card Replacement Charge

A nonrefundable charge is made for replacement of an ID card.

### Payment Plan Enrollment Fee

A nonrefundable fee is charged for enrollment in the payment plan. All tuition and fees are due in full by the payment due date unless the student enrolls in the payment plan.

### Physical Education Activity Charge

Certain activity courses (e.g. bowling, skiing, ice skating, scuba diving) are available only upon the payment of a charge sufficient to cover the cost of the facility or transportation. These charges are set by the operator of the facility, are paid by the student to that operator (not to the University), and are in addition to any other applicable fee.

### Housing Charges

University housing is available for the academic year and summer terms. The academic year contract includes fall and spring terms. Charges are billed each semester. The housing contract includes room and full meal plan. In addition

to the charge for service, a security deposit is required. Payment and refunds are as scheduled in the housing contract. Meal plans are also available for students who are not residents in University Housing.

### PC Remediation Service Fee

Fee assessed for removal of all spyware and viruses from the PC and for installing the most current updates to applications and the operating system to help reduce the risk of future attacks. The first two PC remediation services are provided free of charge to current YSU students; the fee only applies to remediation performed beyond the first two free services.

### Data Recovery Service Fee

Fee assessed to recover data and/or transfer data that was successfully recovered onto a media device provided by the students i.e. flash drive, hard drive, or DVD. No fee assessed unless some or all of the data is recovered. Note: If it is necessary to remove the hard drive from the PC in order to recover data, the Tech Desk will NOT be able to perform the service, and no fee will be charged to the student.

### Returned Check, ACH (Electronic Check), or Credit Card Charge

A charge is levied on anyone whose check, ACH, or charge is returned unpaid by the bank. If any late payment results therefrom, the applicable fee is also assessed. Failure to pay billing of return check, ACH, and/or charge within six days; and/or a second check, ACH, or charge return will result in the University not accepting this type of payment at any of its collection points and may subject the student to financial suspension for the term.

### Student Locker Rental

A limited number of lockers are available in various buildings for the convenience of commuting students. Locker payments and assignments are made in Kilcawley Center.

### Thesis-Binding Charge

A charge is made for each copy of a master's thesis bound by the William F. Maag, Jr. Library.

### Transcript of Credits Charge

There is a charge for normal transcript processing requests as well as rush or overnight express requests issued by the Office of Records. Transcripts will not be issued for anyone with outstanding debts owed to the University.

## Fines

### Parking Violation Fine

Parking without a permit, parking in unauthorized areas and other offenses as identified in the *Parking Regulations* brochure will result in the issuance of a citation against the vehicle and its owner, or against the student responsible for the vehicle (e.g., a student driving a parent's car). Payment of a fine removes the citation. In certain cases, vehicles may be towed. See Parking Violations (<https://cms.ysu.edu/administrative-offices/parking-services/parking-violations>) for detailed information.

### Library Fines

Fines are assessed for failure to return books on time as stipulated or for the unauthorized removal of a reserved book. Willful damage or defacement of library materials or other property is a violation of state law and is punished as such.

### Student Code of Conduct Violation

Fines may be assessed to students who have violated the Student Code of Conduct. These fines can be assessed by the Student Conduct Administrator or the Student Conduct Board after a disciplinary hearing. For a complete list of the possible fines that could be assessed to a student who is found responsible, please visit the Student Conduct Office website at [www.ysu.edu/](http://www.ysu.edu/)

[administrative-offices/student-conduct/art-iv-sect-g](https://cms.ysu.edu/administrative-offices/student-conduct/art-iv-sect-g) (<https://cms.ysu.edu/administrative-offices/student-conduct/student-code-conduct>).

## Reduction/Refund of Fees and Charges Upon Withdrawal

To withdraw from a single course, or from all courses (complete withdrawal), it is necessary to access the registration functions online via the MyYSU Portal – Registration. It is the student's responsibility to confirm that the withdrawal was correctly processed, and the course(s) is (are) deleted. Nonattendance of class, or notification to the instructor or department, does not constitute official withdrawal.

Effective Summer 2009, if a student is permitted to withdraw from the University or if a student reduces his or her academic load, a refund of the tuition charge, and the nonresident tuition surcharge, where applicable, shall be made in conformity with the following schedule for regularly scheduled courses:

*Note: For a complete withdrawal from any term, all applicable fees, fines, and penalties will be deducted from any refunds. If fees were paid by scholarship, loan or grant-in-aid, the appropriate credit will be issued to the fund from which the initial payment was made. Student accounts paid with financial aid may be subject to a financial aid repayment. No refunds will be issued until after the 15th day of the term.*

If the student withdraws after the prescribed time limits (as indicated above), all tuition and other applicable fees and charges are forfeited.

If fees were paid by scholarship, loan or grant-in-aid, the appropriate credit is issued to the fund from which the initial payment was made. Refunds are calculated for Title IV recipients who completely withdraw during the first 60% of the semester.

Title IV financial aid funds are awarded to a student under the assumption that the student will attend school for the entire period for which the assistance was awarded. If a student completely withdraws on or before the 60% point in time of the period of enrollment, calculated using calendar days, a portion of the federal aid awarded (Federal Pell, SEOG, Perkins Loans, Direct Loans, and PLUS Loans – but not Federal Work Study) may need to be returned according to the provisions of the Higher Education Amendments of 1998. This recalculation may result in the student's owing a balance to Youngstown State University and/or the federal Department of Education.

Any withdrawal, or reduction in academic hours **after** the schedule outlined above will not be entitled to a reduction of charges and/or refund unless an Application for Involuntary Withdrawal is submitted and approved by the Fees and Charges Appeal Board. All decisions made by this board are final and binding.

If a student withdraws for reasons beyond his or her control (e.g., illness, military service, job transfer, or shift change imposed by the employer that creates a direct conflict with the class schedule), the fee charges may be reduced in proportion to the number of weeks enrolled, upon submission and approval of an application for involuntary withdrawal.

An application for involuntary withdrawal can be processed only for courses in which the student has already received a grade of "W" (withdrawn). Applications for involuntary withdrawal will be considered only for terms falling within the immediately preceding **one-year time period** (3 semesters). Appeals pertaining to terms beyond this one-year time limit will not be accepted. All applications for involuntary withdrawal must be documented, and are processed only by mail on forms provided by Office of University Bursar. Address such correspondence to:

Fees and Charges Appeals Board  
c/o University Bursar  
Youngstown State University  
One University Plaza

Youngstown, OH 44555

## Title IV Credit Balance Refunds

Title IV students who meet all eligibility requirements at least 10 days before the start of a payment period and whose funds could have been disbursed and those disbursed funds would have created a Title IV credit balance will receive a refund no later than the seventh day of the payment period. The amount of the refund will be the lesser of the amount of the presumed credit balance or the amount needed to purchase books and supplies as determined by Youngstown State University. Refunds are sent as direct deposit to the student's bank account. A direct deposit profile must be set up via the MyYSU portal. Checks to the current address will be sent if no direct deposit is set up.

## Student Fees and Charges

Effective Fall 2017

**(Instructional Fee, General Fee, and Information Services fees are required of all students except where noted).**

Graduate Tuition:

1 to 11	\$429.25	per credit hour
12 to 18 credits	\$5,151.00	per semester
Credits over 18	\$429.25	per credit hour
Master of Fine Arts	\$541.00	per credit hour
Master of Public Health	\$576.00	per credit hour
New Row		

Graduate Workshops Special Tuition Rates:

In-State Participant	\$155.16	per credit hour
Non-Regional Participant	\$165.46	per credit hour
New Row		

Doctoral Tuition:

1 to 11 credits	\$429.25	per credit hour
12 to 18 credits	\$5,151.00	per semester
Credits over 18	\$429.25	per credit hour

Nurse Anesthetist Program Surcharge \$ 2,895.29 per semester

### General Fee Graduate

1 to 11 credits	\$56.97	per credit hour
12 to 18 credits	\$683.64	per semester
Credits over 18	\$56.97	per credit hour

Information Services Fee

1 to 11 credits	\$10.00	per credit our
12 to 18 credits	\$120.00	per semester
Credits over 18	\$10.00	per credit hour

Non-Resident Tuition Surcharge Information (As noted above, all students pay the instructional fee, the general fee, and the information services fee. Those students who are not legal residents of Ohio must pay an additional non-resident tuition surcharge. Students who are residents of the Affordable Tuition Advantage area pay a lesser surcharge than do students who are legal residents of other states and or areas. The Affordable Tuition Advantage Area includes the New York counties of Chautauqua; Pennsylvania counties of Allegheny, Armstrong, Beaver, Butler, Clarion, Crawford, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lawrence, Mercer, Venango, Warren, Washington,

Westmoreland; and West Virginia counties of Brooke, Hancock, Marshall, and Ohio.

### Affordable Tuition Advantage Surcharge

1 to 11 credits	\$15.00	per credit hour
12-18 credits	\$180.00	per semester
Credits over 18	\$15.00	per credit hour
New Row		

Non-Regional Service Area Surcharge Graduate and Undergraduate: (Includes on-campus students who are out of state and out of the Affordable Tuition Area)

1 to 11 credits	\$250.00	per credit hour
12 to 18 credits	\$3,000.00	per semester
Credits over 18	\$250.00	per credit hour

Distance Learning Out of State Fees (Includes students who are enrolled in distance education programs who are out of state and out of the Affordable Tuition Area).

Undergraduate and Graduate 12-18 credit hours bulk rate

Level 1	\$3,122.40
Level 2	\$3,194.40
Level 3	\$3,338.40
Level 4	\$3,518.40
Level 5	\$3,698.40

Undergraduate and Graduate 1-11 credit hours and over 18 credit hours

Level 1	\$260.20
Level 2	\$266.20
Level 3	\$278.20
Level 4	\$293.20
Level 5	\$308.20

Housing Charges

Room and Board per academic year: \$9,090 (Payable as follows: \$4,545.00 Fall semester, and \$4,545.00 Spring semester)

Residence Hall Security Deposit - Paid First Semester \$200.00(If a resident does not stay through Spring semester, the \$200 deposit is forfeited.)

Single Room Surcharge \$ 900.00 per semester

Student Housing during academic breaks

1 to 3 days (no meals, per day) \$ 26.00

Per week (includes 7 meals per week) \$ 205.00

Summer Room and Board (includes 10 meals per week) \$ 260.00

Apartments (room only, per person, per week) \$ 205.00

Meal Plan Options

Bronze \$1,766.00

Silver \$1,806.00

Gold \$1,946.00

Voluntary Board Plan (students not in University housing) please call Dining Services at Ext. 3391.

Weller House Apartments (per academic year -room only)

Two Bedroom family unit \$ 10,000.00

One bedroom single unit \$ 8,000.00

Shared apartments with single bedrooms \$ 7,000.00

Courtyard Apartments (room only, per person)

- 1 Bed / 1 Bath \$805 per month
- 2 Bed / 2 Bath \$680 per month
- 4 Bed / 2 Bath \$590 per month

### Other Fees, Charges, and Fines

A.C.T. Test	\$55.00
Check Replacement Fee	\$25.00
Career Service fee - Freshman & Sophomore per credit hour	\$ 1.75
Career Service fee - Junior & Senior per credit hour	\$2.75
Child Preschool Laboratory Fee	\$150.00
College Level Examination Program Test Fee (C.L.E.P.)	\$25.00
College Over Sixty Registratoin Fee	\$5.00
Computer-Based Placement Re-Test	\$20.00 per test
Counseling Prep Comprehensive Exam (CPCE)	\$40.00
Course Fees:	
Lab & Materials Fee Level 1	\$35.00 per course
Lab & Materials Fee Level 2	\$50.00 per course
Lab & Materials Fee Level 3	\$65.00 per course
Lab & Materials Fee Level 4	\$300.00 per course
Lab & Materials Fee Level 7	\$20.00 per course
Lab & Materials Fee Level 8	\$85.00 per course
Lab & Materials Fee Level 9	\$25.00 per course
Lab & Materials Fee Level 10	\$200.00 per course
Lab & Materials Fee Level 11	\$350.00 per course (cooperative charge)
Lab & Materials Fee Level 12	\$300.00 per course
Lab & Materials Fee Level 13	\$100.00 per course
First Year Experience (Undergrad Only)	\$35.00 per course
Credit by Examination	\$ 20.00 per credit hour

(Credit awarded for courses based upon the successful completion of a test administered by an academic department at Y S U. The course title appears on the transcript but no grade is listed)

Credit Card Convenience Fee (student accounts only)	2.75% minimum \$3.00
Duplicate Diploma Fee	\$40.00
Equipment & Materials Replacment Fee	\$ Market Value
Federal Background Check	\$28.00
Finger Printing Fee (per occurrence)	\$37.00
Graduation fee	\$65.00
Graduation fee late application (after 3rd wk. of term)	\$38.50
Graduate student admissions application fee	\$45.00
Installment payment plan fee	\$45.00 maximum
International Graduate Student Credential Evaluation	\$45.00
International Student Heath Insurance (pass- thru, set by insurance carrier)	\$ Variable
Internal Revenue Service/1098T IRS penalty for incorrect name/SSN match	\$100.00
Late payment fee	\$50.00 for each month account past due
Late registration fee	\$75.00
Late class add fee	\$50.00 per course
MAT test	\$90.00
Ohio Attorney General payment/collection fee	\$ Variable
Parking & Transportation Fees:	Mandatory if enrolled in 6 or more credit hours on campus
Students, Fall/Spring Terms	\$155.00
Students, Summer Term	\$78.00
Parking Permits:	optional if enrolled 0-5 credit hours
Students, Fall/Spring Terms	\$155.00
Students, Summer Term	\$78.00
Parking per day without permit	\$5.00
Processing/Matriculaiton Fee (Undergraduate)	\$80.00
Processing/Matriculaiton Fee (Transfer Students)	\$35.00
PC Data Recovery Service Fee	\$100 per occurrence
PC Remediaton service fee 9if 3 or more occurrences per sem)	\$75.00

Peace Officer Training Academy fee	\$300.00	per semester
Photo ID replacement charge	\$25.00	
Physical Therapy Doctoral Acceptance Deposit	\$500.00	
Proficiency Examination	\$45.00	per course
Program Fees:		
Bachelor of Science in Engineering	\$50.00	per semester
New Row		
Bachelor of Arts in Telecommunications Studies	\$35.00	per course
Art Usage Fee	\$29.00	per course
Performance Music Fee	\$75.00	per credit
MBA Program Fee	\$50.00	per credit
Master in Early Childhood Education (per credit hour)	\$30.00	per credit
Web-Based Course fee (Distance Learning Fee)	\$75.00	per course
Reading Tutoring Fee	\$38.00	per course
Return check or Credit Card Fee	\$30.00	
Rich Autism Center Pre-School Programs	\$125.00	per week
Student Locker Rental	\$25.00	per week
Student Health Insurance	Go To: <a href="https://cms.yсу.edu/administrative-offices/student-health/student-health">https://cms.yсу.edu/administrative-offices/student-health/student-health</a>	
Study Abroad Fee:	\$75.00	
Thesis Binding	\$25.00	
Transcript Fee	\$60.00	
Transcript Rush Fee	\$12.00	same day processing, US mail or in person
Transcript Rush Fee	\$35.00	overnight express
Undergraduate Admissions Application Fee (first-time applicant)	\$45.00	
Undergraduate Admissions Application fee (former student returning)	\$0.00	
Youngstown Early College (per credit hour)	\$106.00	
Youngstown Early College (full time bulk rate, 12-18 cr. hrs)	\$1,272.00	

**Parking Violations**

Parking Violations: Class 1 – Minor violations: 1st offense \$25; 2nd offense \$30; 3rd offense \$35

Class 2 – Major violations \$100 - Class 3 – Legal violations \$150

For more information go to Parking Violations Information (<https://cms.yсу.edu/administrative-offices/parking-services/parking-violations>).

**MAGG Library & Curriculum Resource Center Fines & Fees**

Overdue charges and loan periods differ by type of materials:

- **Most Library Books, CDs, Videos:** No daily fines. At (15) days past due: \$10.00 processing fee plus the item replacement cost.
- **OhioLINK Materials:** Fine \$0.50 per day to a maximum of \$15.00, plus a \$35.00 processing fee and \$75.00 item replacement cost.
- **Reserves, MMC All Other, CRC Non-Print:** \$0.55 per hour/day to a maximum of \$11.00, plus a \$10.00 processing fee and the item replacement cost.

For further Circulation policy details, visit MAAG Circulation Policy (<http://maag.yсу.edu>).

**Student Fines for Violations of the Student Code of Conduct**

Failure to attend Student conduct Conference of Hearing \$25.00; Failure to complete a disciplinary sanction \$25.00; Restitution for lost/stolen/damaged property while in possession \$50 plus restitution.

Substance Abuse Violation: 1st Offense \$75.00; 2nd Of fence \$125.00; 3rd Offense \$175.00.

Drug/controlled substance use/possession/unauthorized prescription drug: 1st Offense \$100.00; 2nd Offense \$150.00; 3rd + Offense \$250.00

Serious Violations of The Student Code of Conduct: Violent/threatening behavior \$150.00; Theft \$150.00; Weapons \$150.00; Drug sales/distribution \$250.00; Other fines corresponding to the nature of the violation up to \$250.00

THE UNIVERSITY RESERVES THE RIGHT TO CHANGE ANY FEE WITHOUT NOTICE.

**Payment of Tuition and Fees**

Student accounts are billed each semester. Tuition statements are sent out electronically, and an e-mail is sent each time a bill is issued. Current account information—including charges, payments, and refund amounts—is available online via the MyYSU Portal. Tuition statements may also be printed from this site.

Students are expected to have their student accounts in a paid status prior to attending the first class meeting for a term. In order to have a student account in a "paid status", students must be either paid in full for the term, or officially signed up and paid the first payment on the approved payment plan. Late and/or partial payments are subject to late payment fee assessment. You are strongly encouraged to pay your bill online. You may also make payment:

- in person at the payment windows on the second floor of Meshel Hall,
- via the payment drop box also located on the second floor of Meshel Hall, or
- by mail to the University Bursar (One University Plaza, Youngstown, OH 44555).

You may pay by check (made payable to Youngstown State University) or with Visa, MasterCard, American Express, or Discover. Effective July 1, 2012 there is a 2.75% convenience fee for payments made by credit card. If you deliver a check in person, mail it, or place it in the payment drop box, you authorize us to convert that check to an electronic Automated Clearing House (ACH) transaction. That check will then appear on your monthly bank statement as an Electronic Debit. If you do not wish to have your paper check converted to an ACH, you must present it in person, or select an alternative payment method (for instance, credit card).

A payment plan is also available that will allow you to spread your payments out over a longer period. Payment plan enrollment must be processed online and requires an initial payment at the time of enrollment. There is a fee for enrollment in the payment plan, and late payments are subject to late payment fee assessment.



Students are solely responsible for timely payment of their tuition and fees. In the event that the account becomes past due, the University reserves the right to withhold services (e.g., transcripts, diplomas, registration) until the past-due balance is paid in full. If full payment cannot be obtained, then the delinquent balance must be turned over to the Ohio Attorney General's Collection Enforcement Office for collection and it will be reported to the Credit Bureau. Once an account becomes delinquent, the student will be required to pay in advance of registering for subsequent terms. An account turned over to the Attorney General will incur interest and collection expenses which must be paid before any of the adverse sanctions can be removed.

Your enrollment at the University creates a contract between you and YSU. If you choose not to attend the University, you must officially withdraw from all courses by the 14th day to receive 100% refund or reduction of charges (see refund policy on page 44). All days of the week are counted, including weekends and holidays, to determine the 14<sup>th</sup> day. Please be advised that all University offices are not open on weekends and holidays; thus, online withdrawal may be required.

If you decide to withdraw from the University once you have enrolled, you must access the registration functions through the MyYSU Portal ([www.ysu.edu](http://www.ysu.edu) (<http://www.ysu.edu>)).

## Fees

### Tuition

The sum of the graduate instructional fee, the general fee, and the information services fee constitutes tuition.

### Graduate Instructional Fee

This fee is assessed to all students each semester. The rate is per academic semester hour of credit of registration. This fee supplements the state subsidy and is revenue of the University's Educational General Fund.

### General Fee

This fee is also assessed of all students each semester; the rate depends upon the number of credits for which the student is registering. This fee is for non-instructional services, such as:

- Kilcawley Center
- intercollegiate athletics
- intramural sports
- performing artists and lecture programs
- Student Government
- Career Services

### Nonresident Tuition Surcharge

As stated, all students pay the instructional fee, the general fee, and the information services fee. Those students who are not legal residents of Ohio also must pay a surcharge.

### Performance Music Fee

This fee is in addition to the regular instructional fee. It is assessed to students taking music lessons and applied on a per-credit basis.

### Information Services Fee

This fee is charged to all students each term and is applied on a per-credit basis to provide information technology infrastructure and services across campus, including the new Student Information Systems, wireless connectivity, classroom technology, and a continuous strengthening and securing of the computing and networking environment. It provides support for technology enhancements and initiatives contained within the IT Master

Plan, supporting the vision to keep pace with an evolving, interactive, student-centered and collaborative electronic learning environment.

### Technology/Laboratory Materials Fee

This fee is designed to partially offset expenses associated with courses that make use of supplies, equipment, or personnel support beyond that associated with typical lecture courses. Examples include:

- chemical supplies
- engineering equipment
- computers and software
- laboratory monitors

### Beeghly College of Education Regional Delivery Fee

This fee is applied to off-campus graduate programs offered by the Beeghly College of Education. It supports coordination and effective delivery of the off-campus program, recruitment and professional development of instructors, and/or customization of programs to meet the needs of working professionals.

## Other Fees

### Application Fee

A nonrefundable application fee must accompany the initial application for admission to the College of Graduate Studies.

### Graduation Fee

This nonrefundable fee is assessed when students apply to graduate to cover costs associated with graduation. If a student delays graduation and has paid the fee, the payment remains valid for the two academic terms following the term of application.

### Late Application for Graduation Fee

There is a fee charged for late application for graduation to anyone who applies after the third week of the semester.

### Late Registration Fee

A fee is charged to a currently enrolled student who fails to register for the next term at the assigned time.

### MBA Program Fee

This fee will support college-level enhancement activities and value-added MBA Program initiatives, services, and activities.

### PC Data Recovery Service Fee

A fee will be assessed to attempt to recover data and/or transfer data that was successfully recovered onto a media device provided by the student, i.e. Flash Drive, Hard Drive, or DVD. No fee will be assessed unless some or all of the data is recovered. Note: If it is necessary to remove the hard drive from the PC in order to recover data, the Tech Desk will NOT be able to perform the service, and no fee will be charged to the student.

### PC Remediation Service Fee

A fee will be assessed for removal of all Spyware and Viruses from the PC and for installing the most current updates to applications and the operating system to help reduce the risk of future attacks. The first two PC remediation services are provided free of charge to current YSU students, and the fee only applies to remediations performed beyond the first two free services.

## Proficiency Examination Fee

A fee is charged for an examination provided by an academic department to determine a student's proficiency for some reason other than assignment of academic credit.

## Transportation Fee

This fee is charged to all students each term registered for 6 or more credit hours in courses designated as on-campus. This fee will allow students to receive a parking permit (at no additional charge). Students must request the permit via MyYSU portal; the permit will give them unlimited access to shuttle service and admission into designated parking areas. The transportation fee supports the operating and maintenance costs of campus parking facilities, roadways and sidewalks, as well as student shuttle service. The fee does not guarantee an available space in any particular lot. Some facilities are restricted (e.g. for students only, for faculty and staff only, or resident hall residents only). The current Driving and Parking Regulations pamphlet and parking lot map should be consulted. The transportation fee is refundable only if the student has less than 6 credit hours (in courses designated as on-campus courses) by the last day of the 100% tuition refund period AND they return the permit access card and validation sticker within five days of either the withdrawal date or the last date of the 100% tuition refund period-whichever is earlier. The transportation fee is non-refundable after the 100% tuition refund period and cannot be appealed.

## Optional Parking Fee

This fee is optional each term for students registered for less than 6 credit hours in courses designated as on-campus. This fee is charged, upon request of the parking permit via MyYSU portal – and will appear on students' accounts as a 'parking fee'. The 'optional' fee and parking permit, will also allow the student to have unlimited access to shuttle service. Students requesting the parking permit after the 14th day of the term will not have the permit issued or shuttle services made available until payment of the fee. The fee supports the operating and maintenance costs of campus parking facilities, roadways and sidewalks, as well as student shuttle service. The fee does not guarantee an available space in any particular lot. Some facilities are restricted (e.g. for students only, for faculty and staff only, or resident hall residents only). The current Driving and Parking Regulations pamphlet and parking lot map should be consulted. The fee is refundable only if the student returns the permit access card, validation sticker, and has less than 6 credit hours in courses designated as on-campus within five days of either the withdrawal date or the last date of the 100% tuition refund period-whichever is earlier. This fee is non-refundable after the 100% tuition refund period and cannot be appealed.

A daily fee is charged anyone without a permit who wishes to park in facilities designated for cash business. Persons other than employees and students who are on campus for a short period of time to conduct business may park in one of the visitors' lots if space is available.

## Fines

### Fines

#### ***Parking Violation Fine***

Parking without a permit, parking in unauthorized areas and other offenses as identified in the *Parking Regulations* brochure will result in the issuance of a citation against the vehicle and its owner, or against the student responsible for the vehicle (e.g., a student driving a parent's car). Payment of a fine removes the citation. In certain cases, vehicles may be towed. See the regulations (<https://cms.ysu.edu/administrative-offices/parking-services/parking-violations>) for detailed information.

#### ***Library Fines***

Fines are assessed for failure to return books on time as stipulated or for the unauthorized removal of a reserved book. Willful damage or defacement of

library materials or other property is a violation of state law and is punished as such.

### ***Student Code of Conduct Violation***

Fines may be assessed to students who have violated the Student Code of Conduct. These fines can be assessed by the Student Conduct Administrator or the Student Conduct Board after a disciplinary hearing. For a complete list of the possible fines that could be assessed to a student who is found responsible, please visit Student Conduct Office (<https://cms.ysu.edu/administrative-offices/student-conduct/fines>).

## Service Charges

### Check Replacement Fee

A nonrefundable fee is charged for each request to have a student refund check replaced.

### Housing Charge

University housing is available for the academic year and summer terms. The academic year contract includes the Fall and Spring terms. Charges are billed each semester. The housing contract includes room and a flexible meal plan. A security deposit is required. Payment and refunds are as scheduled in the housing contract. Meal tickets are also available for students who are not residents of University-owned housing.

### Identification Card Replacement Charge

A charge is made for replacement of an ID.

### Returned Check, ACH (Electronic Check) or Credit Card Charge

A charge is made to anyone whose check, ACH, or charge card is returned unpaid by the bank. Any late payment fee applicable is also assessed. Failure to pay billing of return check, ACH and/or charge within six days and/or a second check, ACH, or charge return will result in the University's refusal to accept this type of payment at any of its collection points and may subject the student to financial suspension for the term.

### Student Locker Charge

A limited number of lockers are available in various buildings for the convenience of commuting students. Payment and assignments are made at the Kilcawley Information Center.

### Thesis Binding Charge

A charge is made for each copy of a thesis or dissertation bound by the Maag Library.

### Transcript of Credits Charge

There is a charge for normal transcript processing requests, rush, or overnight requests issued by the Office of Records. Transcripts will not be issued for students or alumni with outstanding debts owed the University. Only a student may order a transcript; however, students are cautioned that most graduate and professional schools as well as many employers accept transcripts only if sent directly by the University.

## Reduction/Refund of Fee Charges Upon Withdrawal

To withdraw from a single course or all courses (complete withdrawal), it is necessary to process a change of registration through BANNER online via the MyYSU Portal—Registration. It is the student's responsibility to confirm

that the withdrawal was correctly processed and the course(s) is/are deleted. Nonattendance of class, or notification to the instructor or department, does not constitute official withdrawal.

Effective Summer 2009, if a student is permitted to withdraw from the University or if a student reduces his or her academic load, a refund of the tuition charge, and the nonresident tuition surcharge (if applicable), shall be made in conformity with the following schedule for regularly scheduled courses:

Length of Course	100% Refund	No Reduction of Charges
6 weeks or more	Thru the 14th day <sup>1</sup>	15th day and later
Less than 6 weeks	15% of the course	More than 15% of the course

Note: Because access to change of registration is now available online 24/7, every day of the week is counted (including weekends and holidays) when calculating tuition refunds.

<sup>1</sup> Note: For a complete withdrawal from any term, all applicable fees, fines, and penalties will be deducted from any refunds. If fees were paid by scholarship, loan, or grant-in-aid, the appropriate credit will be issued to the fund from which the initial payment was made. Student accounts paid with financial aid awards may be subject to a financial aid repayment. No refunds will be issued until after the 14th day of the term.

If a withdrawal is after the prescribed time limits (as indicated above), all tuition and other applicable fees and charges are forfeited. All applicable fees, fines, and penalties due must be paid before the refund is paid.

## State Residency Status

Place of residency for tuition purposes will be determined at the time of admission or readmission by the Office of Graduate Admissions on the basis of the residency rules stated in this section and information supplied on the Application for Admission form.

If the student has any questions about appropriate classification, at the time of application, or any time thereafter, it is the student's responsibility to immediately bring it to the attention of the Office of Undergraduate Admissions for review, as changes to resident status cannot be made retroactive if supporting documentation is received after the first day of the requested semester. Charges may be made to any student improperly classified as an Ohio resident.

## Resident Status Appeal

Appeal for a change in residency classification should be made in writing to the Office of Recruitment and Admissions. The Office may require the student to complete an Application for Nonresident Tuition Surcharge Exemption form. A decision will be sent in writing to the student, who may then appeal the classification in a personal interview.

The student may request the Office of Recruitment and Admissions to arrange an appearance before the Residence Classification Board. Such appearances ordinarily occur within two weeks of the request, if possible. The Residence Classification Board's appellate decision is final.

## Ohio Student Residency for State Subsidy and Tuition Surcharge Purposes

### A. Intent and authority

1. It is the intent of the chancellor of the Ohio board of regents in promulgating this rule to exclude from treatment as residents, as that term is applied here, those persons who are present in the state of Ohio primarily for the purpose of receiving the benefit of a state-supported education.

2. This rule is adopted pursuant to Chapter 119 of the Revised Code, and under the authority conferred upon the chancellor of the Ohio board of regents by section 3333.31 of the Revised Code.

### B. Definitions

1. "Resident" shall mean any person who maintains a twelve-month place or places of residence in Ohio, who is qualified as a resident to vote in Ohio and receive state public assistance, and who may be subjected to tax liability under section 5747.02 of the Revised Code, provided such person has not, within the time prescribed by this rule, declared himself or herself to be or allowed himself or herself to remain a resident of any other state or nation for any of these or other purposes.
2. "Financial support" as used in this rule, shall not include grants, scholarships and awards from persons or entities which are not related to the recipient.
3. An "institution of higher education" shall have the same meaning as "state institution of higher education" as that term is defined in section 3345.011 of the Revised Code, and shall also include private medical and dental colleges which receive direct subsidy from the state of Ohio.
4. "Domicile" as used in this rule is a person's permanent place of abode, so long as the person has the legal ability under federal and state law to reside permanently at that abode. For the purpose of this rule, only one domicile may be maintained at a given time.
5. "Dependent" shall mean a student who was claimed by at least one parent or guardian as a dependent on that person's internal revenue service tax filing for the previous tax year.
6. "Residency Officer" means the person or persons at an institution of higher education that has the responsibility for determining residency of students under this rule.
7. "Community Service Position" shall mean a position volunteering or working for:
  - a. VISTA, Americorps, city year, the peace corps, or any similar program as determined by the chancellor of the Ohio board of regents; or
  - b. An elected or appointed public official for a period of time not exceeding twenty-four consecutive months.

### C. Residency for subsidy and tuition surcharge purposes

The following persons shall be classified as residents of the state of Ohio for subsidy and tuition surcharge purposes:

1. A student whose spouse, or a dependent student, at least one of whose parents or legal guardian, has been a resident of the state of Ohio for all other legal purposes for twelve consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.
2. A person who has been a resident of Ohio for the purpose of this rule for at least twelve consecutive months immediately preceding his or her enrollment in an institution of higher education and who is not receiving, and has not directly or indirectly received in the preceding twelve consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes.
3. A dependent student of a parent or legal guardian, or the spouse of a person who, as of the first day of a term of enrollment, has accepted full-time, self-sustaining employment and established domicile in the state of Ohio for reasons other than gaining the benefit of favorable tuition rates. Documentation of full-time employment and domicile shall include both of the following documents:
  - a. A sworn statement from the employer or the employer's representative on the letterhead of the employer or the employer's representative certifying that the parent, legal guardian or spouse of the student is employed full-time in Ohio.
  - b. A copy of the lease under which the parent, legal guardian or spouse is the lessee and occupant of rented residential property in the state; a copy of the closing statement on residential real property located in Ohio of which the parent, legal guardian or spouse is the owner and

occupant; or if the parent, legal guardian or spouse is not the lessee or owner of the residence in which he or she has established domicile, a letter from the owner of the residence certifying that the parent, legal guardian or spouse resides at that residence.

#### **D. Additional criteria which may be considered in determining residency may include but are not limited to the following:**

1. Criteria evidencing residency:
  - a. If a person is subject to tax liability under section 5747.02 of the Revised Code;
  - b. If a person qualifies to vote in Ohio;
  - c. If a person is eligible to receive Ohio public assistance;
  - d. If a person has an Ohio's driver's license and/or motor vehicle registration.
2. Criteria evidencing lack of residency:
  - a. If a person is a resident of or intends to be a resident of another state or nation for the purpose of tax liability, voting, receipt of public assistance, or student loan benefits (if the student qualified for that loan program by being a resident of that state or nation);
  - b. If a person is a resident or intends to be a resident of another state or nation for any purpose other than tax liability, voting, or receipt of public assistance (see paragraph (D)(2)(a) of this rule).
3. For the purpose of determining residency for tuition surcharge purposes at Ohio's state-assisted colleges and universities, an individual's immigration status will not preclude an individual from obtaining resident status if that individual has the current legal status to remain permanently in the United States.

#### **E. Exceptions to the general rule of residency for subsidy and tuition surcharge purposes:**

1. A person who is living and is gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who is pursuing a part-time program of instruction at an institution of higher education shall be considered a resident of Ohio for these purposes.
2. A person who enters and currently remains on active duty status in the United States military service while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
3. A person on active duty status in the United States military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio for these purposes.
4. A person who is transferred by his employer beyond the territorial limits of the fifty states of the United States and the District of Columbia while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile as long as such person has fulfilled his or her tax liability to the state of Ohio for at least the tax year preceding enrollment.
5. A person who has been employed as a migrant worker in the state of Ohio and his or her dependents shall be considered a resident for these purposes provided such person has worked in Ohio at least four months during each of the three years preceding the proposed enrollment.
6. A person who was considered a resident under this rule at the time the person started a community service position as defined under this rule, and his or her spouse and dependents, shall be considered a resident of Ohio while in service and upon completion of service in the community service position.
7. A person who graduated from an Ohio high school, left the state, and returns to enroll in an Ohio public institution of higher education and establishes domicile in the state.

8. A person who returns to the state of Ohio due to marital hardship, takes or has taken legal steps to end a marriage, and reestablishes financial dependence upon a parent or legal guardian (receives greater than fifty percent of his or her support from the parent or legal guardian), and his or her dependents shall be considered residents of Ohio.
9. A person who is a member of the Ohio National Guard and who is domiciled in Ohio, and his or her spouse and dependents, shall be considered residents of Ohio while the person is in Ohio national guard service.
10. A person who is eligible, or whose benefits have been exhausted or have expired, for benefits under the Post 9/11 Veterans Educational Assistance Act of 2008 or any prior federal act establishing veterans' education benefits, who has been honorably discharged or released from service, who, as of the first day of a term of enrollment, is domiciled in Ohio, and his or her spouse and dependents, shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
 

Documentation determined to be acceptable by the institution:

  - a. DD214 or other military document showing honorable discharge.
  - b. Documentation of domicile shall include a copy of the lease under which the person or spouse is the lessee and occupant of rented residential property in the state; a copy of the closing statement on residential real property located in Ohio of which the person or spouse is the owner and occupant; or if the person or spouse is not the lessee or owner of the residence in which he or she has established domicile, a letter from the owner of the residence certifying that the person or spouse resides at that residence.

#### **F. Procedures**

1. A dependent person classified as a resident of Ohio for these purposes under the provisions of paragraph (C)(1) of this rule and who is enrolled in an institution of higher education when his or her parents or legal guardian removes their residency from the state of Ohio shall continue to be considered a resident during continuous full-time enrollment and until his or her completion of any one academic degree program.
2. In considering residency, removal of the student or the student's parents or legal guardian from Ohio shall not, during a period of twelve months following such removal, constitute relinquishment of Ohio residency status otherwise established under paragraph (C)(1) or (C)(2) of this rule.
3. For students who qualify for residency status under paragraph (C)(3) of this rule, residency status is lost immediately if the employed person upon whom resident student status was based accepts employment and establishes domicile outside Ohio less than twelve months after accepting employment and establishing domicile in Ohio.
4. Any person once classified as a nonresident must apply to the institution he or she attends for reclassification as a resident of Ohio for these purposes if such person in fact wants to be reclassified as a resident. It is the student's responsibility to initiate contact. Should such person present clear and convincing proof that no part of his or her financial support is or in the preceding twelve consecutive months has been provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident. Evidentiary determinations under this rule shall be made by the institution which may require, among other things, the submission of documentation regarding the sources of a student's actual financial support.
5. Any reclassification of a person who was once classified as a nonresident for these purposes shall have prospective application only from the date of such reclassification, effective the following semester.
6. Any institution of higher education charged with reporting student enrollment to the chancellor of the Ohio board of regents for state subsidy purposes and assessing the tuition surcharge shall provide individual students with a fair and adequate opportunity to present proof of his or her Ohio residency for purposes of this rule. Such an institution may require the submission of affidavits and other documentary evidence which it may deem necessary to a full and complete determination under this rule.

## Financial Assistance

Graduate students may apply for assistantships and fellowships, on campus employment, as well as Federal Financial Aid. Scholarships (p. 783) are also available.

### Assistantships

The assistantship program is predicated on the idea that graduate students, given an opportunity to assist the faculty, provide a service to the institution and also gain valuable experience through this work in association with the faculty. Appointments to assistantships are made by the dean of The College of Graduate Studies only upon recommendation by the student's academic department. In those instances, in which the student indicates acceptance of an assistantship award after April 15, the student may not accept another appointment without first obtaining formal release for this purpose.

Applications for assistantships must be accompanied or preceded by application for admission to the College of Graduate Studies. All applicants and current students with superior credentials including first-year international graduate students may apply for graduate assistantships.

Graduate assistants may be assigned to instructional, research, and/or other academic duties as determined by the department in which the assistant is appointed and as approved by the dean of The College of Graduate Studies.

**Graduate Assistant (GA)** A GA is normally be assigned duties primarily focused on the conduct of research/scholarly activity. A GA may be assigned teaching duties, but should not be the instructor of record. Appointment is typically for the Fall and Spring semesters of an academic year.

**Graduate Research Assistant (GRA)** A GRA is only be assigned duties focused on the conduct of research/scholarly activity and will typically receive a twelve-month appointment.

**Graduate Assistant/Intern (GA/I)** A GA/I is a special category of graduate assistant designated to provide opportunities for university offices or departments, community companies or agencies, or other appropriate external sponsors to involve graduate students as academic assistants/interns in real life experiences related to their fields of study.

**Teaching Assistant (TA)** A TA will only be assigned duties focused on instruction and may be the instructor of record for a regularly scheduled lower division undergraduate class.

Note: Additional academic services to the academic program in which the student is enrolled may be appropriate for all assistantship appointments.

A student appointed as a graduate assistant (GA, GRA, TA and GA/I) will be paid a stipend. The student transportation fee will be remitted during each term of appointment. The department/agency of service will provide a stipend to the university which will be paid to the student through the normal stipend process for GA/I appointments.

Assistantships require 20 hours per week during the Fall and Spring semester, including exam week, for duties to be assigned by the department chair. Graduate assistants assigned to classroom or laboratory duties are under the direct supervision of a full-service faculty member who will retain full responsibility for the maintenance of high academic and pedagogical standards.

The Chair of the department will be responsible for assessing the oral proficiency in English. Students who do not achieve a satisfactory rating will not be permitted to teach, and will be assigned non-teaching duties (research, grading, etc.) International graduate students, who have been appointed as teaching assistants, including graduate assistants who are assisting with teaching duties, are required to demonstrate oral proficiency in English. The speaking subsection of a standardized test will be utilized in the assessment

process. For a TA, a minimum of 23 on the TOEFL is considered satisfactory; a score of 7 is considered satisfactory on the IBT.

Graduate students who are in provisional status because of undergraduate coursework deficiencies cannot be appointed as teaching assistants until the required coursework is completed. Such students can be considered for research appointments. Exceptions to this policy may be considered and must be reviewed and approved by the dean of the College of Graduate Studies.

To remain eligible for the assistantship, an appointee must discharge his or her duties satisfactorily and maintain good academic standing. An appointee must maintain full-time enrollment (9 semester hours of degree-credit coursework per term for the regular academic year. In addition, students appointed as Graduate Research Assistants must also enroll in at least 6 semester hours during the summer term. With the advisor's approval, graduate coursework that is not part of the graduate assistant's degree program may be counted toward the 18-semester-hour minimum for the assistantship. Approval to carry more than 18 semester hours or fewer than nine semester hours in any semester may be granted by the dean of The College of Graduate Studies only upon clear justification from the student's academic program department. (For a TA who is the instructor of record and has a teaching load of five to six semester hours, the minimum required enrollment is six semester hours, but the College of Graduate Studies must be notified of this). For a teaching assistant who is the instructor of record and has a teaching load of four semester hours or less, the minimum required enrollment remains at nine semester hours.)

Graduate assistants shall not hold other full-time employment but may accept occasional or temporary employment outside the University during the term of the assistantship, subject to the approval of the department chair or the program director of the department. Other employment on the YSU campus requires the approval of the dean of The College of Graduate Studies.

Each assistantship provides a stipend. Graduate assistants may also be awarded a Graduate College Premiere Scholarship 36.0.

### Graduate College Premiere Scholarship

Graduate College Premiere Scholarship is typically provided for 36.0 semester hours

The Graduate College Premiere Scholarship 36.0 provides:

- Up to 36sh of instructional fees during the combined fall and spring semesters and up to 12sh for the summer term (for graduate courses required to complete a single degree program) Note: Summer scholarships require renewal of the scholarship.
- Nonresident tuition surcharge
- Music performance fees (if applicable)

Criteria for Initial Award:

- Acceptance for regular admission to the College of Graduate Studies (Exceptions may be granted by the graduate dean)
- Cumulative undergraduate GPA of 3.0 or higher on a 4.0 scale.
- Recommendation by the appropriate academic dean
- Approval by the dean of graduate studies

To Maintain the Scholarship:

- Student must remain in good standing
- Student must maintain a minimum 3.0 GPA on a 4.0-point scale for all graduate coursework
- Student must maintain enrollment of at least 18 semester hours of degree-credit coursework for the academic year and no fewer than 9 semester hours in each of the fall and spring semesters (Exceptions may be granted by the graduate dean)

- Making good progress towards degree completion, as determined by the department chair

Notes:

- Awards are subject to availability of funds
- This compensation may be subject to taxation
- Typically, the initial scholarship will cover Fall and Spring terms and the renewal of scholarship will include Summer, Fall and Spring.

Failure to meet any of the criteria to maintain this scholarship will result in termination of the scholarship.

Graduate assistants who have been admitted with undergraduate course deficiencies will make up course deficiencies by taking the appropriate courses at their own expense.

Further information regarding assistantship stipends and scholarships is available at The College of Graduate Studies Assistantship and Fellowship website (<http://cms.ysu.edu/college-graduate-studies/assistantships-fellowships>).

#### Guidelines for Graduate Assistant Leave

Circumstances occasionally occur that prevent graduate assistants (including GAs, TAs, and GAIs) from performing the duties of their appointment. Consistent with Youngstown State University's effort to support all members of our community, these guidelines seek to reduce the professional and personal stresses that can develop when graduate assistants encounter extenuating circumstances that warrant a temporary absence from their assistantship duties. The purpose of these guidelines is to outline how instances of personal and/or family illness, injury, childbirth or adoption, and other agreed upon and valid reasons for absence should be addressed by the unit funding the assistantship. These guidelines are intended to ensure that the graduate assistant support be maintained to the extent possible during an approved absence. In the cases of foreseeable events, the graduate assistant should inform his/her direct assistantship supervisor as soon as the circumstances and dates of needed leave are known. For unforeseeable events, notification should be made as soon as possible once the need arises. It should be noted that leave requests may be jeopardized or denied for reasons including, but not limited to, multiple leave requests, unsatisfactory performance levels, evidence of dishonesty, and insufficient documentation. Furthermore, these guidelines pertain only to issues related to the individual as a graduate assistant. There are separate attendance policies for the individual as a graduate assistant at YSU.

Short-term graduate assistant absences may be requested for valid periods of absences which typically span less than two weeks in duration. In these instances, the graduate assistant should make the request to his/her direct assistantship supervisor as promptly as possible, so that coverage of duties during the requested short-term absence can be addressed. Reasonable requests for short-term absences can typically be approved with all graduate assistant benefits maintained. The graduate assistant should work with the direct assistantship supervisor and the department chair to ensure that the time can be made up in a reasonable manner through creative ways such as working up to an extra five hours per week, working over university breaks, etc. The graduate assistants, the direct assistantship supervisor, and the department chair should agree to this plan in writing through the Short Term/Extended Leave Form (See Attached).

For needed absences from graduate assistant duties of longer than two weeks, a graduate assistant must formally request an extended leave. Long-term absences may be requested for a variety of valid reasons as previously noted. These types of requests should be reasonable and include written documentation related to the reason for absence (such as a letter from a medical doctor, legal documentation, etc.). The request for extended leave must be made to the chair of the department providing the assistantship in consultation with the direct assistantship supervisor. Whenever possible, the department chair should not reassign workload to another graduate

assistant. Graduate assistants who are formally approved through the Short Term/Extended Leave Form will be excused from their regular graduate assistant activities for the duration of their approved leave. Although tuition remission will continue during the extended absence, graduate assistants will no longer receive the monthly stipend for the duration of their approved leave. The graduate assistant's monthly stipend resumes upon successful return to the graduate assistant position within the particular appointment period. Should the graduate assistant require additional leave time beyond the original agreement, this must be formally approved by the department chair in consultation with the direct graduate assistant supervisor through the Short Term/Extended Leave Form. Should the graduate assistants be unable to return until after the original appointment ending date, there is no guarantee of the availability of a continued graduate assistantship. However, the graduate student would be considered for future graduate assistant appointments in a manner consistent with all other graduate students.

## Graduate Assistant/Intern

A special category of graduate assistant, designated as a graduate assistant/intern (GA/I), provides opportunities for University offices or departments, community companies or agencies, or other appropriate external sponsors to involve graduate students as academic assistants/interns in "real life" experiences related to their fields of study. The department/agency of service will provide a stipend to the University, which will be paid to the student through the normal stipend process. The GA/I will be expected to work in the internship work environment 20 hours per week.

Further information about graduate assistant/intern appointments may be obtained from the College of Graduate Studies.

## Cushwa/Commercial Shearing Graduate Fellowships

Cushwa/Commercial Shearing Graduate Fellowships are available for selected outstanding graduate students in YSU's master's degree programs in Science, Technology, Engineering, and Mathematics (STEM). Upon successful completion of the program, Cushwa Fellows will be awarded a master's degree in their field of study. The Charles B. Cushwa, Jr./Commercial Shearing Inc. Graduate Student Scholarship/Fellowship Fund was established in 2003 to provide students the opportunity to pursue advanced degrees, get career experience, and offset some of the financial challenges of continuing their education. In addition, the community will benefit from these scholars interacting with local businesses and bringing the resources of the University into the local economy.

Fellows are expected to devote 20 hours per week for 16 weeks per semester (12 weeks in summer) to fellowship duties. They are assigned to a research or other appropriate work experience that is related to the academic program in which they are enrolled. Fellows are normally expected to complete at least one semester as a graduate intern at a company or industry site related to their degree program. Cushwa/Commercial Shearing Fellows must maintain enrollment in at least 18 semester hours of degree-credit coursework for the regular academic year (fall and spring), not fewer than nine semester hours of degree-credit coursework during each fall and spring semester, and not fewer than six semester hours in the summer. To remain eligible, fellows must discharge their duties satisfactorily and maintain good academic standing in their coursework. Appointments are made annually based on satisfactory performance.

The stipend is \$15,000 for the academic year and summer (three semesters). Fellows will be awarded funding for instructional fees and out of state surcharge. Other academic fees may be remitted.

Normally, the Cushwa/Commercial Shearing Fellow receives an appointment for two years, including summers. An application for a Cushwa Fellowship should be submitted with the initial application for admission to the College of Graduate Studies or as soon as the student is advised to do so by the

graduate faculty advisor. As part of the application process, applicants must submit an official Graduate Record Examination (GRE) score report (regardless of whether or not the GRE is required for the student's graduate program). Applicants must have been awarded a undergraduate degree from a regionally accredited U.S. institution. Contact the College of Graduate Studies for the current year's deadline.

## Doctoral Fellowships

Doctoral fellows not only provide a service to the institution but also gain valuable experience through their special association with the faculty. Doctoral fellows are assigned to a research, teaching, or other appropriate work experience that is related to their academic program.

Normally, the doctoral fellow receives an appointment for a period of one calendar year beginning with the fall semester. To remain eligible for a fellowship, fellows must discharge their duties satisfactorily and maintain good academic standing in their coursework. Good academic standing for graduate students is a cumulative grade point average of at least 3.0 in graduate-level courses.

Doctoral fellows will typically be awarded a Graduate College Premier Scholarship.

## Graduate College Premiere Scholarship

Graduate College Premiere Scholarship is typically provided for 36.0 semester hours

The Graduate College Premiere Scholarship 36.0 provides:

- Up to 36sh of instructional fees during the combined fall and spring semesters and up to 12sh for the summer term (for graduate courses required to complete a single degree program) Note: Summer scholarships require renewal of the scholarship.
- Nonresident tuition surcharge
- Music performance fees (if applicable)

Criteria for Initial Award:

- Acceptance for regular admission to the College of Graduate Studies (Exceptions may be granted by the graduate dean)
- Cumulative undergraduate GPA of 3.0 or higher on a 4.0 scale.
- Recommendation by the appropriate academic dean
- Approval by the dean of graduate studies

To Maintain the Scholarship:

- Student must remain in good standing
- Student must maintain a minimum 3.0 GPA on a 4.0-point scale for all graduate coursework
- Student must maintain enrollment of at least 18 semester hours of degree-credit coursework for the academic year and no fewer than 9 semester hours in each of the fall and spring semesters (Exceptions may be granted by the graduate dean)
- Making good progress towards degree completion, as determined by the department chair

Notes:

- Awards are subject to availability of funds
- This compensation may be subject to taxation
- Typically, the initial scholarship will cover Fall and Spring terms and the renewal of scholarship will include Summer, Fall and Spring.

Failure to meet any of the criteria to maintain this scholarship will result in termination of the scholarship.

Graduate assistants who have been admitted with undergraduate course deficiencies will make up course deficiencies by taking the appropriate courses at their own expense.

Further information regarding assistantship stipends and scholarships is available at The College of Graduate Studies Assistantship and Fellowship website (<http://cms.yzu.edu/college-graduate-studies/assistantships-fellowships>).

## Ph.D. in Materials Science and Engineering Fellowship

The appointee to the Ph.D. in Materials Science and Engineering Doctoral Fellowship is expected to devote a minimum of twenty hours per week to fellowship duties.

Doctoral fellows are required to be full-time graduate students as defined in the *Graduate Catalog*. Prior approval to carry more than twelve credit hours or fewer than nine credit hours in any one semester must be obtained from the department concerned and the dean of the College of Graduate Studies. When determining minimum course hours, degree credit coursework will include whatever courses are stipulated by the Ph.D. program coordinator to fulfill the requirements for the degree program.

Institutionally funded first-year doctoral fellowships carry a stipend of \$23,500 for one calendar year. Continuing Ph.D. students, and those funded from external grants, may be awarded at a higher level, dependent upon the recommendation of the advisor, approval of the STEM dean, and availability of funds.

## Ed.D. Fellowship

The Ed.D. Fellowship in Educational Leadership is awarded to outstanding doctoral students contributing and studying in the area of education. The Ed.D. Fellowship provides recipients with an academic year service appointment with the expectation of a minimum of twenty hours per week devoted to fellowship duties. Normally, one fellowship is awarded per year.

Criteria:

- Full-time doctoral status
- Admitted to candidacy by date of application
- Outstanding scholarship
- Minimum 3.0 GPA

Doctoral fellows are required to be full-time graduate students as defined in the *Graduate Catalog*. Prior approval to carry more than twelve credit hours or fewer than nine credit hours in any one semester must be obtained from the department chair of EFRTL and the dean of the College of Graduate Studies. When determining minimum course hours, degree credit coursework will include whatever courses are stipulated by the Ed.D. program coordinator to fulfill the requirements for the degree program.

Award:

The recipient will receive a fellowship stipend for the academic year in the amount of \$10,000. The recipient will also be awarded the Graduate College Premiere Scholarship for 20 s.h. Recipient must meet requirements to maintain the scholarship and stipend.

Application and Selection Processes:

Submit letter of interest and letter of recommendation by April 30 for consideration for the following year. Along with a completed application (including scholarship statement), students are required to submit a CV/resume, and a letter of recommendation from a current Youngstown State University faculty member. All materials must be received by the deadline.

Applications are reviewed by a committee comprised of faculty representing various ranks and disciplines. Recipients are selected by the Department Chair of Educational Foundations, Research, Technology and Leadership.

For further information on the Ed.D. Fellowship please contact Chuck Vergon at (330) 941-1574.

## Federal Financial Aid

Graduate students enrolled in degree programs at YSU may apply for federal financial aid in the Financial Aid and Scholarships Office, 202 Meshel Hall. (See Full-Time Status as it relates to eligibility for federal financial aid. (p. 765))

## On-Campus Student Employment

Graduate students enrolled in degree programs are eligible for on-campus student employment. For information on how to apply, contact the Office of Student Life, Jones Hall.

## Scholarships

### Graduate College Premiere Scholarship

Graduate College Premiere Scholarship is typically provided for 36.0 semester hours

The Graduate College Premiere Scholarship 36.0 provides:

- Up to 36sh of instructional fees during the combined fall and spring semesters and up to 12sh for the summer term (for graduate courses required to complete a single degree program) Note: Summer scholarships require renewal of the scholarship.
- Nonresident tuition surcharge
- Music performance fees (if applicable)

Criteria for Initial Award:

- Acceptance for regular admission to the College of Graduate Studies (Exceptions may be granted by the graduate dean)
- Cumulative undergraduate GPA of 3.0 or higher on a 4.0 scale.
- Recommendation by the appropriate academic dean
- Approval by the dean of graduate studies

To Maintain the Scholarship:

- Student must remain in good standing
- Student must maintain a minimum 3.0 GPA on a 4.0-point scale for all graduate coursework
- Student must maintain enrollment of at least 18 semester hours of degree-credit coursework for the academic year and no fewer than 9 semester hours in each of the fall and spring semesters (Exceptions may be granted by the graduate dean)
- Making good progress towards degree completion, as determined by the department chair

Notes:

- Awards are subject to availability of funds
- This compensation may be subject to taxation
- Typically, the initial scholarship will cover Fall and Spring terms and the renewal of scholarship will include Summer, Fall and Spring.

Failure to meet any of the criteria to maintain this scholarship will result in termination of the scholarship.

Graduate assistants who have been admitted with undergraduate course deficiencies will make up course deficiencies by taking the appropriate courses at their own expense.

Further information regarding assistantship stipends and scholarships is available at The College of Graduate Studies Assistantship and Fellowship website (<http://cms.ysu.edu/college-graduate-studies/assistantships-fellowships>).

### Graduate Scholarship (new students only)

Graduate scholarships are available from the College of Graduate Studies for new graduate students accepted into a YSU graduate degree program.

#### Criteria for the scholarship

Cumulative undergraduate GPA of 3.5 or above

- All undergraduate coursework for the earned bachelor's degree will be included in determining the GPA.

Each scholarship is renewable for up to 6 semesters if the student maintains a 3.0 graduate GPA and completes a minimum of 6 semester hours of graduate courses each fall and spring semester.

The Graduate Scholarship is applied to the instructional fees only. Students receiving the College Credit Plus Instructor scholarship are ineligible for the Graduate Scholarship.

No scholarship application is required; however, this scholarship is competitive and will be distributed according to GPA until the allocation for each program is met. Students should apply for admission early as funds are limited. The award process begins in April for the following academic year.

The College of Graduate Studies supports the April 15th Resolution Regarding Graduate Scholars, Fellows, Trainees and Assistants of the Council of Graduate Schools. The resolution is available at: <http://www.cgsnet.org/april-15-resolution>(link is external) .

Amount: \$500 - \$1,000 to be credited toward the instructional fee each fall and spring semester if renewal requirements are met

Renewable: Yes

### College Credit Plus Instructor Scholarship

#### Minimum Qualifications

Current YSU graduate student OR a new or returning student admitted to the College of Graduate Studies

Instructor of a College Credit Plus dual enrollment course being delivered in a partner high school course (Verification by the Metro Credit office is required.)

Enrolling in YSU graduate level courses

#### What's Covered

\$333 per credit hour for instructional fees of graduate level courses (3-6 semester hours per semester)

All other fees remain the responsibility of the student

Courses must count towards the College Credit Plus content area requirements and be taken for a grade

#### Receiving the Scholarship

Contact Karla Krodel ([kmkrodel@ysu.edu](mailto:kmkrodel@ysu.edu)) in the Metro Credit office to confirm your eligibility for the scholarship.

If you are not a current YSU graduate student you should apply for admission or readmission at [www.ysu.edu/gradcollege](http://www.ysu.edu/gradcollege) (link is external) and have all necessary application materials submitted to the College of Graduate Studies at least one month prior to the beginning of the semester in which you plan to enroll.



Register for appropriate graduate courses early and notify Karla Krodel in the Metro Credit office at [kmkrodel@ysu.edu](mailto:kmkrodel@ysu.edu)

Scholarships will be awarded on a first-come first-served basis until funds are exhausted.

If you receive a graduate assistantship or the Graduate Scholarship you are ineligible for this scholarship

### Dr. Eugene D. Scudder Graduate Student Teaching Scholarship

Dr. Eugene D. Scudder Graduate Student Teaching Scholarship is a cash award given to a chemistry graduate student for outstanding performance in teaching assignments. Students cannot apply for this scholarship.

**Amount:** \$100

**Awards Available:** 1

**Deadline Date:** Not Applicable

**Renewable:** No

**Contact:** Counseling Department, 330-941-3257

### Dr. Robert A. DiGiulio Scholarship

The Dr. Robert A. DiGiulio Scholarship is awarded to a graduate student in the Department of Counseling who has been accepted into the program. The recipient must demonstrate need and be a non-traditional female student over the age of 25 years. Student must have at least a 3.00 average in Departmental courses.

**Amount:** \$500

**Awards Available:** 1

**Deadline Date:** February 1

**Renewable:** Information not available

**Contact:** Counseling Department, 330-941-3257

### Gertrude Hendricks Family Life Scholarship

The Gertrude Hendricks Family Life Scholarship is available each year to a graduate student whose undergraduate major has afforded preparation for an effective contribution to the family life area. Application is by letter to the School of Graduate Studies and Research. The following information should be included: undergraduate major, degree, and year; other degree work, if any; current graduate program; career goal(s); a statement of how the Hendricks scholarship will help the student to achieve his or her goal(s); and a statement of how the scholarship will prepare the student for "an effective contribution to the family life area."

**Amount:** Varies

**Awards Available:** Varies

**Deadline Date:** February 1

**Renewable:** Yes

**Contact:** College of Graduate Studies, 330-941-3091

Application Form ([http://cms.ysu.edu/sites/default/files/documents/college-graduate-studies/Hendricks\\_Scholarship\\_Application.pdf](http://cms.ysu.edu/sites/default/files/documents/college-graduate-studies/Hendricks_Scholarship_Application.pdf))\*

### Doris Burdman Scholarship - Graduate

The Doris Burdman Scholarship - Graduate is awarded to a student enrolled in the Master of Social Work program who is maintaining a minimum 3.0 GPA. The recipient must have completed a minimum of 12 semester hours of graduate level social work courses by the semester the award is to be granted. The recipient must showcase a commitment and dedication to the social work field as demonstrated through completion of an essay.

**Amount:** \$2,500

**Awards Available:** 1

**Deadline Date:** February 1

**Renewable:** No

**Contact:** Scholarship Committee Chairperson, Department of Social Work, 330-941-1598

### Dr. James A. Reeder Graduate Scholarship

Dr. James A. Reeder Graduate Scholarship is awarded to a current chemistry graduate student who will be enrolled at YSU at least part-time during the next academic year. Students cannot apply for this scholarship.

**Amount:** Varies, minimum \$500

**Awards Available:** 1

**Deadline Date:** Not applicable

**Renewable:** No

**Contact:** Chemistry Department for more information

### Earl E. Edgar Memorial Scholarship

The Earl E. Edgar Memorial Scholarship is awarded to a graduate student studying the humanities. Applicant must be enrolled in the MA program in American Studies, English, or History; have regular admission status; and have at least half of the degree program requirements completed at the time of application. Application is by letter to the College of Graduate Studies. Selection is based on academic excellence and financial need.

**Amount:** Varies

**Awards Available:** Varies

**Deadline Date:** February 1

**Renewable:** Yes

**Contact:** College of Graduate Studies, 330-941-3091

Application Form ([http://cms.ysu.edu/sites/default/files/documents/college-graduate-studies/Edgar\\_Scholarship\\_Application.pdf](http://cms.ysu.edu/sites/default/files/documents/college-graduate-studies/Edgar_Scholarship_Application.pdf))\*

### ROTC Scholarship

Army ROTC is an elective curriculum you take along with your required college classes. It prepares you with the tools, training and experiences that will help you succeed in any competitive environment. Along with great leadership training, Army ROTC can pay for your college tuition, too. You will have a normal college student experience like everyone else on campus, but when you graduate, you will be an Officer in the Army. Recipients must pass a physical fitness test, be U.S. citizens, have a minimum 2.5 GPA and minimum ACT of 19 or SAT of 930.

**Amount:** Up to \$12,000 per school year or \$48,000 for 4 yrs

**Awards Available:** Not applicable

**Deadline Date:** Not applicable

**Renewable:** Yes, must be full-time with 2.5 GPA

**Contact:** Military Science Department at 330-941-3205

### Martha K. Shuster Memorial Scholarships

Martha K. Shuster Memorial Scholarships are awarded in recognition of academic achievement in memory of a former YSU employee and Women's Club president. Scholarships are available to one graduate student. Candidates must have completed one third of degree requirements and a minimum 3.5 GPA. Financial need may be considered and a short essay is required. More information can be found at the following website: [www.ysu.edu/womensclub](http://www.ysu.edu/womensclub) (<http://www.ysu.edu/womensclub>).

## Course Numbering System, Abbreviations, and Reference Marks

Courses listed in this catalog are of two types.

- Courses in the 5800 series are upper-division undergraduate courses in which graduate students may enroll for graduate credit with the approval of an advisor.
- Courses in the 6900- and above series are graduate-level courses normally open only to graduate students but which undergraduates may elect under

conditions outlined in Graduate Courses for Undergraduates. Courses in the 8100 series are doctoral-level courses.

- The abbreviation *s.h.* at the end of a course description stands for “semester hours of credit.” Thus, credit for a three-hour, two-semester course is indicated by the notation 3+3 *s.h.*, meaning three semester hours of credit each semester.
- *Prereq.* stands for “prerequisite.”
- *Comma.* Ordinarily, a comma between numbers (e.g., 6907, 6908) indicates that the course extends throughout the year, but that credit toward graduation is given for each course individually.
- *En dash.* An en dash between numbers (e.g., 6907–6908) indicates that credit is not given toward graduation for the work of the first semester until the work of the second semester is completed, except when special permission is granted by the chair of the department in which the course is given. The first semester of such a course is prerequisite to the second.

## Application for Involuntary Withdrawal

If a student withdraws for reasons beyond his or her control (e.g., illness, military service, job transfer, or shift change imposed by the employer that creates a direct conflict with the class schedule), the fee charges may be reduced in direct proportion to the number of weeks in attendance. An application for involuntary withdrawal can only be processed for courses in which the student has already received a grade of W (withdrawn). The aforementioned applications will only be considered for semesters falling within the immediately preceding year (three semesters). Appeals pertaining to semesters beyond this one-year time limit will not be accepted. All applications for involuntary withdrawal must be documented and are processed only by mail on forms provided by the Bursar and Accounts Receivable. Address such correspondence to:

The Fees and Charges Appeals Board  
c/o Bursar and Accounts Receivable  
Youngstown State University  
One University Plaza  
Youngstown, OH 44555

The decision of the Board is final and not subject to reappeal.

## Graduate Student Grievance Procedure

### Academic Grievances

The Student Academic Grievance Procedure provides students with a formal channel through which complaints concerning academic matters may be heard. A student must attempt to resolve the complaint by first discussing the issue with the faculty member. If the complaint is not resolved at that level, the student should direct his or her complaint to the department chair and, if the complaint is still not resolved, then to the dean of the college.

Complaints not resolved following a discussion with the dean will be considered by an associate provost or designee, who will serve as Judicial Chair. Upon his or her review, the Judicial Chair determines whether the complaint is grievable. If the complaint is grievable, it is presented to the Student Academic Grievance Subcommittee. Per the YSU-OEA Agreement, Article 20, academic matters that may be grieved are the following:

- Material deviation from the grading scale or weight distribution indicated on the course syllabus by the faculty member, to the detriment of the individual student or the entire class.
- Material deviation of faculty contractual obligations as specified in the article on Teaching Rights and Responsibilities in the Faculty Collective

Bargaining Agreement, to the detriment of the individual student or the entire class.

Other areas of contention between a student and a faculty member may not be grieved under this section. The student should contact the department chair of the faculty member's department or the dean of the college housing the faculty member's department for further advisement in these situations.

Students wishing to file a grievance should contact the administrative assistant in the Office of the Provost for an appropriate referral. Further information may be found in the Academic Grievance Guide, which is available online at the Student Success (<http://cms.yzu.edu/administrative-offices/student-success/division-student-success>) homepage. A paper copy may be obtained in the Division of Student Success.

An electronic copy of the Student Academic Grievance Form (<https://www.dropbox.com/s/bbg1w32fdqui29g/Academic%20Grievance%20Form.pdf?dl=0>) is available. An electronic copy of the Student Academic Grievance Procedure (<https://www.dropbox.com/s/5zeuyqckgy281w/Grievance%20Panel%20Procedure%20072917.pdf?dl=0>) is also available.

## Graduate Faculty

Please see the Current Graduate Faculty Listing ([http://webserv.cc.yzu.edu/grad\\_faculty/#](http://webserv.cc.yzu.edu/grad_faculty/#)) for complete list of graduate faculty including Category 2 and 3.

### A

#### Dr. Martin A. Abraham

Provost and Vice President for Academic Affairs and Professor of Civil/Environmental and Chemical Engineering  
Graduate Faculty Member  
B.S., Rensselaer Polytechnic Institute, 1982  
Ph.D., University of Delaware, 1987

#### Dr. Samuel Adu-Poku

Professor of Art  
Graduate Faculty Member  
B.A., University of Science and Technology (Ghana), 1987  
Dip. Ed., University of Science and Technology (Ghana), 1988  
M.Ed., University of New Brunswick (Canada), 1995  
Ph.D., University of British Columbia (Canada), 2002

#### Dr. Mari L. Alschuler

Associate Professor of Social Work  
Graduate Faculty Member  
B.A., Brown University, 1980  
M.Ed., Teachers College of Columbia University, 1987  
M.S.W., Fordham University, 1990  
Ph.D., Barry University, 2012

#### Dr. Isam E. Amin

Professor of Geological and Environmental Sciences  
Graduate Faculty Member  
B.S., University of Khartoum, 1977  
M.S., New Mexico Inst. of Mining and Technology, 1983  
Ph.D., University of Nevada-Reno, 1987

#### Dr. Corey E. Andrews

Professor of English  
Graduate Faculty Member  
B.A., Miami University, 1992  
M.A., Ohio University, 1995  
Ph.D., Ohio University, 2000

#### Dr. Felicia P. Armstrong

Associate Professor of Geological and Environmental Sciences  
Graduate Faculty Member  
B.S., University of Dayton, 1987

M.S., Alabama AM University, 1996  
Ph.D., Oklahoma State University, 2003

**Dr. Abdurrahman Arslanyilmaz**

Associate Professor of Computer Science and Information Systems  
Graduate Faculty Member  
B.E., Gazi University (Turkey), 1998  
Certificate, Intensive English School, Middle East Technical University (Turkey), 2000  
M.Ed., University of Missouri-Columbia, 2002  
Ph.D., Texas AM University, 2007

**Dr. David K. Asch**

Associate Professor of Biological Sciences  
Graduate Faculty Member  
B.S., University of Nebraska-Lincoln, 1981  
M.S., Creighton University, 1983  
Ph.D., University of Kansas Medical Center, 1991

**Dr. Kathleen Aspiranti**

Assistant Professor of Counseling, School Psychology, and Educational Leadership  
Graduate Faculty Member  
B.A., Wright State University, 2004  
M.S., University of Tennessee, 2009  
Ph.D., University of Tennessee, 2011

**Dr. Diana Awad-Scrocco**

Assistant Professor of English  
Graduate Faculty Member  
B.A., Youngstown State University, 2006  
M.A., Kent State University, 2008  
Ph.D., Kent State University, 2012

**Dr. Daniel Ayana**

Professor of History  
Graduate Faculty Member  
B.A., Addis Ababa University, 1980  
M.A., Addis Ababa University, 1984  
Ph.D., University of Illinois at Urbana-Champaign, 1995

## B

**Dr. Rebecca Lee Badawy**

Assistant Professor of Management  
Graduate Faculty Member  
B.A., State University of New York at Buffalo, 2008  
M.A., West Chester University of Pennsylvania, 2010  
Ph.D., State University of New York at Buffalo, 2014

**Dr. Snjezana Balaz**

Assistant Professor of Physics and Astronomy  
Graduate Faculty Member  
B.S., Northland College, 2001  
M.S., University of Nebraska, 2005  
Ph.D., University of Nebraska, 2007

**Dr. Ganesaratnam K. Balendiran**

Professor of Chemistry  
Graduate Faculty Member  
B.S., University of Sri Lanka, 1985  
Ph.D., University of Wisconsin-Madison, 1991

**Dr. Kimberly A. Ballone**

Professor of Nursing  
Graduate Faculty Member  
B.S.N., Youngstown State University, 1987  
M.S.N., Kent State University, 1989  
D.N.P., Case Western Reserve University, 2009

**Dr. Rebecca A. Barnhouse**

Professor of English  
Graduate Faculty Member  
B.A., Florida State University, 1983  
M.A., University of North Carolina, 1986  
Ph.D., University of North Carolina at Chapel Hill, 1994

**Dr. Andrea Barrick**

Assistant Professor of Social Work  
Graduate Faculty Member  
B.S.W., Barton College, 2001  
M.P.A., West Virginia University, 2008  
M.S.W., West Virginia University, 2008  
M.A., West Virginia University, 2012  
Ph.D., West Virginia University, 2015

**Christopher Barzak**

Professor of English  
Graduate Faculty Member  
B.A., Youngstown State University, 1998  
M.A., Youngstown State University, 2003  
M.F.A., Chatham University, 2010

**Dr. Patrick J. Bateman**

Associate Professor of Management  
Graduate Faculty Member  
B.S., Rutgers University, School of Business, 1995  
M.S., Temple University, Fox School of Business, 2002  
Ph.D., University of Pittsburgh, 2008

**Dr. Laura L. Beadling**

Associate Professor of English  
Graduate Faculty Member  
B.F.A., Bowling Green State University, 1995  
M.A., Purdue University, 2001  
Ph.D., Purdue University, 2007

**Dr. Jane Beese**

Associate Professor of Counseling, School Psychology, and Educational Leadership  
Graduate Faculty Member  
B.A., University of Akron, 1987  
M.A., Case Western Reserve University, 1991  
Ed.D., University of Akron, 2008

**Dr. Jennifer Behney**

Assistant Professor of Foreign Languages and Literatures and English  
Graduate Faculty Member  
B.A., Capital University, 1995  
M.A., University of Findlay, 1997  
Ph.D., Michigan State University, 2011

**Dr. Christopher M. Bellas**

Associate Professor of Criminal Justice and Forensic Sciences  
Graduate Faculty Member  
B.A., Edinboro University of Pennsylvania, 1997  
A.S., Edinboro University of Pennsylvania, 1998  
M.S., Youngstown State University, 2001  
Ph.D., Kent State University, 2010

**Dr. James A. Benedict**

Assistant Professor of Physical Therapy  
Graduate Faculty Member  
B.S., The Ohio State University, 1982  
M.Ed., Kent State University, 1989  
Ph.D., Walden University, 2016

**Dr. Terry Benton**

Assistant Professor of English  
Graduate Faculty Member

B.S., Youngstown State University, 1999  
 M.A., Youngstown State University, 2001  
 Ph.D., Kent State University, 2015

**Dr. Kristine Blair**

Dean of the College of Liberal Arts and Social Sciences and Professor of English  
 Graduate Faculty Member  
 B.A., California State University, 1986  
 M.A., California State University, 1988  
 Ph.D., Purdue University, 1994

**Dr. Shelley Blundell**

Assistant Professor of Communication  
 Graduate Faculty Member  
 B.A., Kent State University, 2006  
 B.S., Kent State University, 2007  
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