



**UNDERGRADUATE  
CATALOG**  
2018-2019



**YOUNGSTOWN  
STATE UNIVERSITY**



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# **UNDERGRADUATE CATALOG**

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## **YOUNGSTOWN STATE UNIVERSITY UNDERGRADUATE CATALOG 2018-2019**

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 curricular 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
- Cliffe 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/directory/?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/Associate Vice President

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.

- Administer 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** (<http://www.yсу.edu/multicultural-affairs>).

## Office of Equal Opportunity and Policy Development

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

**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, veteran/military state, or any other status protected by law, in its programs and activities.**

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, dating violence and domestic violence, whether involving faculty, staff, students, or third parties.

#### Director Office of EOPD:

Cynthia Kravitz, Esq.  
Youngstown State University  
One University Plaza, Tod Hall-Room 301  
Youngstown, Ohio 44555  
Telephone 330-941-2340 or -2216  
Fax 330-941-2394  
[cakravitz@ysu.edu](mailto:cakravitz@ysu.edu)

#### TITLE IX DIRECTOR:

#### Kelly Beers

One University Plaza, Tod Hall Room 310  
Youngstown, Ohio 44555  
Telephone (330)941-4629  
Fax (330) 941-2394  
[kbeers@ysu.edu](mailto:kbeers@ysu.edu) or [TitleIX@ysu.edu](mailto:TitleIX@ysu.edu) ([titleix@ysu.edu](mailto:titleix@ysu.edu))

The Title IX Director oversees the investigation and disposition of student complaints of sex/gender based discrimination and harassment, including complaints involving dating violence, domestic violence, stalking and sexual assault. The Director of the Office of EOPD, Cynthia Kravitz, serves as the Title IX Deputy Director and can also be contacted regarding any Title IX questions or complaints.

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

**Disability Services/Inquiries:** For information regarding disability services, including reasonable academic and workplace accommodations, please contact:

**For Students:** Gina McGranahan, Assistant Director of Disability Services  
One University Plaza, Kilcawley Center Room 2082  
Youngstown, Ohio 44555  
Telephone (330) 941-2090 or [glmcgranahan@ysu.edu](mailto:glmcgranahan@ysu.edu)

#### For Employees and others, Title II/Section 504 Coordinator:

Allan Boggs, Interim Chief Human Resources Officer  
One University Plaza, Tod Hall Room 359  
Youngstown, Ohio 44555  
Telephone (330) 941-2160 or [Alboggs01@ysu.edu](mailto:Alboggs01@ysu.edu)

## Academic Organization

The Academic Division is organized in the following units:

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

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, three sessions of six weeks each, and two sessions of eight 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. 56) 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. 247) 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
- obtainment of professional certifications

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 Crosswalks (<https://ysu.edu/prior-learning-assessment/training-certification-crosswalks>) webpage and look at crosswalks. If you have a certificate that is awarded immediate credit, please contact Dr. Tammy A. King, PLA Coordinator,

at [taking@ysu.edu](mailto:taking@ysu.edu) for assistance with the required paperwork for obtaining the credit.

YSU has partnered with FastPathOhio (<http://fastpathohio.com>) to assist students with the development of portfolios. Before completing a portfolio for credit, please contact the PLA Coordinator.

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

## Veterans

The US Military is considered one of the finest training institutions 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.

Military Veterans, current service members (active and reserve) and certain qualified dependents often arrive at the university with various Department of Defense (DOD), Veterans Administration (VA) or State of Ohio Education benefits. The Office of Veterans Affairs located at the Veterans Resource Center, 633 Wick Avenue, Youngstown State University helps these military connected students make sense of their education benefits. Youngstown State University will not engage in unethical recruitment practices of this protected student population. Unacceptable practices include offering inducements to any individual for the purpose of securing enrollments of Service members, providing commission, bonus or other incentive payment based directly or indirectly on securing Service member enrollments, or engaging in high-pressure recruitment tactics.

Student Veterans at Youngstown State University are afforded certain benefits in recognition for their service to country. The benefits include but are not limited to:

- waiver of application and orientation fees
- advocacy services
- disability services
- weekly communications relative to veterans
- student veterans group
- military friendly deployment practices
- special recognition at graduation
- access to the Veterans Resource Center
- evaluation of military transcripts

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 will 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 appropriate 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. Every effort will be made to maximize the amount of college credit awarded for military training.

In addition, current military members (Active, Guard and Reserve), when called away to official duty during the semester, will be given special consideration as it applies to late withdrawals, and re-admission to programs in which they satisfactorily participate.

Questions should be addressed to the Office of Veterans Affairs, (330) 941-2503. See the Office of Veterans Affairs (<http://cms.yosu.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.

## Former Student Applicants

All students who have interrupted their attendance at Youngstown State University for three consecutive semesters must reapply. Information regarding readmission can be found at undergraduate readmission (<https://cms.yosu.edu/administrative-offices/registrar/readmission-former-students>). Students who have attended any accredited college or university since last attending YSU must contact the Office of Admissions, submit a Former Transfer 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. 43) 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 2018

<b>Freshman</b>	
Application Deadline:	<b>Aug. 1</b>
Credentials Deadline:	<b>Aug. 1</b>
<b>Former Transfer and Transfer</b>	
Application Deadline:	<b>Aug. 1</b>
Credentials Deadline:	<b>Aug. 15</b>
<b>Former Transient and Transient</b>	
Application Deadline:	<b>Aug. 1</b>
Credentials Deadline:	<b>Aug. 15</b>
<b>Beginning Dates for Each Semester</b>	<b>Wednesday, Aug. 22, 2018</b>

### Spring Semester 2019

<b>Freshman</b>	
Application Deadline:	<b>Dec. 1</b>
Credentials Deadline:	<b>Dec. 1</b>
<b>Former Transfer and Transfer</b>	
Application Deadline:	<b>Dec. 1</b>
Credentials Deadline:	<b>Dec. 15</b>
<b>Former Transient and Transient</b>	
Application Deadline:	<b>Dec. 1</b>
Credential Deadline:	<b>Dec. 15</b>
<b>Beginning Dates for Each Semester</b>	<b>Monday, Jan. 14, 2019</b>

### Summer Semester 2019

<b>Freshman</b>	
Application Deadline:	<b>Apr. 15</b>
Credentials Deadline:	<b>Apr. 15</b>
<b>Former Transfer and Transfer</b>	
Application Deadline Summer I:	<b>Apr. 15</b>
Credentials Deadline Summer I:	<b>May 15</b>
Application Deadline: Summer II & III:	<b>May 15</b>
Credentials Deadline: Summer II & III	<b>June 1</b>
<b>Former Transient and Transient</b>	
Application Deadline Summer I:	<b>Apr. 15</b>
Credentials Deadline Summer I:	<b>May 15</b>
Application Deadline: Summer II & III:	<b>May 15</b>
Credentials Deadline: Summer II & III:	<b>June 1</b>
<b>Beginning Dates for Each Semester</b>	
Full-Term, First 6-Week Term, First 8-Week Term:	<b>Monday, May 20, 2019</b>
Middle 6-Week Term, Middle 8-Week Term:	<b>Monday, June 17, 2019</b>
Second 6-Week Term:	<b>Monday, July 1, 2019</b>

## 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.ysu.edu/administrative-offices/international-programs-office/future-students>). Those wishing to enroll in the English Language Institute (ELI) also apply directly through the IPO; visit the ELI section (<http://www.ysu.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. Admission may be offered in certain cases to applicants who submit certified copies of credentials.** Students admitted with copies will be required to produce all original documents by the end of their first term of enrollment.

## International Application Priority Deadlines

Semester	Freshman	Transfer from U.S. Institutions
Fall	June 1	June 15
Spring	November 1	November 15

## 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:
  - 67 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 910 on the SAT II English Language Proficiency Test
- American College Testing (ACT) [17]
- PTE Academic (Pearson Test of English) [58]
- 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 Youngstown State University offers an intensive English program with non-credited classes for English language learners. In addition, the ELI provides an orientation to college life and American culture. Classes are available to college-bound students, permanent residents, immigrants, and special interest groups. Upon graduation from the program, students will have completed their English proficiency requirements and are granted admission to Youngstown State University (No TOEFL or IELTS required).

**Please note:** ELI courses cannot be used as credit toward a degree. Applicants should be aware that deficiencies in English may increase the amount of time and money required for completing a regular program of study.

## 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 YSU's English Language Institute (ELI).

### Admission with Transfer Credit

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.

## 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 920 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.ysu.edu/administrative-offices/international-programs-office/english-proficiency-requirements>).

## Articulated Credit

In the presence of a formal bi-lateral agreement between Youngstown State University and a particular career center or high school, students may earn college credit for specified technical 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 northeast Ohio. 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.ysu.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 evidence based writing and reading and math composite below 920), 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. Students with an ACT/SAT score can not test out of conditional status.

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 new student orientation; failure to do so will defer admittance to a subsequent semester. Transfer students may meet this requirement by attending a regular or transfer orientation 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 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	Fundamentals of College Writing	4
or ENGL 1540	Introduction to College Writing	
2. Successfully completed six semester hours of non-developmental courses.
3. Achieved good academic standing (a GPA of 2.00 or above). See the *Undergraduate Catalog* for more information on academic standing.
4. 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 1 <sup>1,5</sup>	3
ENGL 1551	Writing 2 <sup>1,5</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 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	Introduction to Theatre <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 YSU Office of College Tech Prep and Special Projects. 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-baccalaureate 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 36-40 semester or 54-60 quarter hours of course credit in:

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

- 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 2.0 (on a 4.0 system). Cumulative gpa includes work from all previous institutions. Earned credits transferring into YSU will apply to one of three areas including general education, major coursework, or elective credit. Developmental/remedial courses do not apply toward any degree at YSU. 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 dismissals 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 transfer applicants are required to submit all undergraduate transcripts from regionally accredited colleges and universities attended. Official high school transcripts are also required to be submitted. All transcripts should be sent to YSU's Office of Admissions.

### Post-Baccalaureate

Post-baccalaureate 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 (<https://www.yсу.edu/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. 49).
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 the transferred and YSU courses. The General Education Committee 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.yсу.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 **2 and 4 Year Agreements with other Institutions**.

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 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. 49) 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

Tuition and fees are assessed based on the number of credit hours of enrollment, residency, course and/or program. 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.

## 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 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 semesters falling within the immediately preceding one-year time period (3 semesters). Appeals pertaining to semesters beyond this one-year time limit will not be accepted. All applications for involuntary withdrawal must be documented. Applications are processed only by mail on forms provided by Office of University Bursar. Address such correspondence to:**

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

**The decision of the Board is final and not subject to re-appeal.**

## Billing

Student accounts are billed each semester (bills will be issued approximately the 15th of July for the Fall semester and 15th of December for the Spring semester, and payments are due approximately the 10th of the following month respectively). ALL tuition statements will be issued electronically and must be viewed online. Paper bills are never mailed. If you need a paper copy of your statement, you may print it directly from the website. An e-mail notice that the bill is online for your review will be sent, to the student and all authorized users, each time a new statement is released as well as each time account activity alters a payment plan balance. This statement, as well as all

subsequent tuition statements, will also be available online for your review via the MyYSU Portal:

Go to View My Bill ([https://my.yzu.edu/cp/home/displaylogin?goto=https%3A//my.yzu.edu/cp/ip/login%3Fsys%3Dsctssb&url=https%3A//sctssap.admin2.yzu.edu%3A8443/pls/PRODS/zwgktnet.P\\_Redirect%3FformTarget%3D\\_self](https://my.yzu.edu/cp/home/displaylogin?goto=https%3A//my.yzu.edu/cp/ip/login%3Fsys%3Dsctssb&url=https%3A//sctssap.admin2.yzu.edu%3A8443/pls/PRODS/zwgktnet.P_Redirect%3FformTarget%3D_self)) and log in to review statements and make online payments or enroll in payment plan, establish an authorized user, view holds, select tax information.

### **YOU ARE STRONGLY ENCOURAGED TO PAY YOUR BILL ONLINE AT 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.** or

\*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 online by echeck (no additional charge) or with Visa, MasterCard, or Discover. Effective May 1, 2018 there is a 2.85% 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).

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. 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.

You may also enroll in a payment plan, for current term charges, through the MyYSU Portal. 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. All tuition balances are due in full by the due date unless you enroll online in an authorized payment plan. Please note, if your balance is not paid in full by the due date, or you have not enrolled online in the payment plan, your account will be subject to late payment fee assessment.

Students may designate another individual as an "authorized user(s)" by going to [my.yzu.edu/viewmybill](https://my.yzu.edu/viewmybill), log in, and click on Authorized Users on the right side of the page. Follow the instructions to set up an authorized user. Once an authorized user has been set up by the student, that individual will also have online access to the student's tuition statements by logging on at Youngstown State University Student Account Suite ([https://epay.yzu.edu/C21820\\_tsa/web/login.jsp](https://epay.yzu.edu/C21820_tsa/web/login.jsp)). Online payments can also be made via this website. E-mail notifications will be sent to both parties whenever a transaction is processed.

Please note, if a payment is made by credit card and subsequently a refund is due, it will be issued by direct deposit directly to the student. The Youngstown State University e-mail system is the official means of communication, and all students and employees are responsible for information sent to them via their MyYSU account. It is the policy of this institution that:

- all students, faculty, and staff have access to e-mail, and
- the university will send official communications via e-mail and electronic mailing lists

Please be advised that failure to read e-mail, or regularly review your student account online, does not relieve a student of the responsibility to make on-time payment in the correct amount. Any adjustment to your student account (increase and/or decrease) due to registration changes, changes in financial aid awards, assessment of late fees, fines or penalties, or any other transaction will be immediate and will be reflected (after 8:00 am on the following business day) in all remaining balances due, including unpaid payment plan installments. Your account can be reviewed at any time by accessing your online account via the [ysu.edu/viewmybill](https://ysu.edu/viewmybill) link.

Questions regarding billing and/or payment of fees should be directed to the Office of University Bursar at (330) 941-3133, or in person at Room 227, Meshel Hall. Any payments received via the online payment website will be applied to the oldest charges first. Please note that the University reserves the right to change any fee at any time, without notice, by action of the University Board of Trustees.

## 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](https://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.**

**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.** or

\*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 online by echeck (no additional charge) or with Visa, MasterCard, or Discover. Effective May 1, 2018 there is a 2.85% 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.

## Penguin Tuition Promise

The YSU Penguin Tuition Promise is a cohort-based, level-rate tuition, room and board, and fee guarantee model that assures a student and his/her family a set of fixed rates for the pursuit of an undergraduate degree at Youngstown State University. The Penguin Tuition Promise is designed to make the cost of college predictable and affordable. Beginning with the 2018-2019 academic year, every new first-year, transfer, or re-admitted degree-seeking undergraduate student will be part of the Penguin Tuition Promise. For additional information visit the YSU Penguin Tuition Promise (<https://ysu.edu/ysu-penguin-tuition-promise>) page.

Tuition and fees are assessed based on the number of credit hours of enrollment, residency, course, and/or program. 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.

## Penguin Tuition Promise Description of 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.

## Fees

### INSTRUCTIONAL FEE

This fee is assessed to all penguin tuition promise 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.

### GENERAL FEE

This fee is also assessed to all penguin tuition promise 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, and student government.

### NON-RESIDENT TUITION SURCHARGES

All penguin tuition promise students pay the instructional fee and general 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 Allegheny, Armstrong, Beaver, Butler, Clarion, Crawford, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lawrence, Mercer, Venango, Warren, Washington and Westmoreland counties in Pennsylvania; Chautauqua County in New York; and Brooke, Hancock, Marshall, and Ohio counties in West Virginia.

### 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.

**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.

**COURSE BOOK AND SUPPLY FEE**

This fee represents the cost for electronic materials such as eBooks that are used in designated course(s). This fee is non-refundable after the 100% tuition refund period and cannot be appealed.

**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.

**DISTANCE EDUCATION LEARNING FEES**

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.

**PARKING permit (OPTIONAL)**

This fee is optional each term for penguin tuition promise students and will also allow the student to have unlimited access to shuttle service. The Daytime parking permit will grant access to approved lots from 7:00 a.m. to 11:00 p.m. The Overnight parking permit will grant access to approved lots without any time restrictions. This fee is charged, upon request of the parking permit via MyYSU portal. 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 overnight parking 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 parking 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. 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.

**PERFORMANCE MUSIC 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. It is assessed students taking music lessons and is applied on a per-credit basis.

**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.

**STUDIO ART FEE**

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 purpose 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, 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.

**Service Charges****COMPUTER-BASED PLACEMENT RE-TEST FEE**

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

**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.

**HEALTH CENTER FEE**

The Mercy Health Student Health Center is located on the corner of Wick and Lincoln Avenue. The Center provides health care to all currently enrolled YSU students – both resident and commuter students. These services are provided because of the Health Center Fee that is paid by all students each semester. The mandatory fee provides revenue to Mercy Health System to give student access to their Primary Care Facility. The center will be staffed by a full-time





**GENERAL FEE**

1 to 11 credits	\$84.60	per credit hour
12 to 18 credits	\$1,015.19	per semester
Over 18 credits	\$84.60	per credit hour

**NON-RESIDENT TUITION SURCHARGE INFORMATION**

As noted above, all graduate 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 Allegheny, Armstrong, Beaver, Butler, Clarion, Crawford, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lawrence, Mercer, Venango, Warren, Washington, and Westmoreland counties in Pennsylvania; Chautauqua County in New York; and Brooke, Hancock, Marshall, and Ohio counties in West Virginia.

**AFFORDABLE TUITION ADVANTAGE SURCHARGE**

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)

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)

**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

**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

**COLLEGE FEES**

**BEEGHLY COLLEGE OF EDUCATION (JUNIOR AND ABOVE)**

1 to 11 credits	\$8.00	per credit hour
12 to 18 credits	\$96.00	per semester
Over 18 credits	\$8.00	per credit hour

**BITONTE COLLEGE OF HEALTH & HUMAN SERVICES (JUNIOR AND ABOVE)**

1 to 11 credits	\$12.50	per credit hour
12 to 18 credits	\$150.00	per semester
Over 18 credits	\$12.50	per credit hour

**CLIFFE COLLEGE OF CREATIVE ARTS & COMMUNICATIONS (ALL UNDERGRADUATES)**

1 to 11 credits	\$9.00	per credit hour
12 to 18 credits	\$108.00	per semester
Over 18 credits	\$9.00	per credit hour

**CLIFFE COLLEGE OF LIBERAL ARTS & SOCIAL SCIENCES (JUNIOR AND ABOVE)**

1 to 11 credits	\$8.50	per credit hour
12 to 18 credits	\$102.00	per semester
Over 18 credits	\$8.50	per credit hour

**COLLEGE OF SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS (JUNIOR AND ABOVE)**

1 to 11 credits	\$25.00	per credit hour
12 to 18 credits	\$300.00	per semester
Over 18 credits	\$25.00	per credit hour

**WILLIAMSON COLLEGE OF BUSINESS ADMINISTRATION (JUNIOR AND ABOVE)**

1 to 11 credits	\$20.00	per credit hour
12 to 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.

Taught by the High School teacher at student's high school	\$41.64	per credit hour
Taught by YSU Instructor at High School	\$83.28	per credit hour
Taught by YSU Instructor online/campus	\$166.55	per credit hour

**HOUSING CHARGES**

**Housing Charges**

Room and Board per academic year	\$9,400.00 (Payable as follows: \$4,700.00 fall semester, and \$4,700.00 spring semester)
Residence Hall Application Fee (academic year and/or summer)	\$35.00
Single Room Surcharge	\$1,400.00 per semester

**Student Housing During Academic Breaks**

1 to 3 days (no meals, per day)	\$26.00
Per week (no meals, per week)	\$182.00

**Summer**

Summer Room and Board	\$285.00 (includes 10 meals per week)
Weller House Apt rates prorated for current tenants	\$400.00 per month

**Voluntary Board Plan**

(students not in University housing) go to <https://www.dineoncampus.com/ysu/meal-plan-purchase>

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

Two Bedroom Family Unit	\$10,000.00
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One Bedroom single unit	\$8,000.00
Shared apartments with single bedrooms	\$7,000.00
<b>Courtyard Apartments</b> (room only, per person)	
1 bed/ 1 bath	\$815.00 per month
2 bed/ 2 bath	\$690.00 per month
4 bed/ 2 bath	\$600.00 per month
<b>Courtyard Expanded Room Rates</b>	
4 bed converted to 6 bed (single bed)	\$400.00 per month
4 bed converted to 6 bed (full-size bed)	\$500.00 per month

**VOLUNTARY BOARD PLAN (STUDENTS NOT IN UNIVERSITY HOUSING) PLEASE GO TO Dine on campus (<http://catalog.yсу.edu>[HTTPS://WWW.DINEONCAMPUS.COM/YSU/MEAL-PLAN-PURCHASE](https://www.dineoncampus.com/ysu/meal-plan-purchase)) OR 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**

ACT Test Fee	\$55.00
Art Usage Fee	\$29.00 per course
Career Service Fee - Level 1 - Freshman and Sophomore	\$1.75 per credit hour
Career Service Fee - Level 2 - Junior and Senior	\$2.75 per credit hour
College Level Examination Program Test Fee (CLEP)	\$25.00
College over 60 Registration fee	\$5.00
Course Book, eBook, and instructional supplies	Variable
Credit by Examination <sup>1</sup>	\$20.00 per credit hour
Deferred Payment fee (employer paid only)	\$50.00
Equipment & Materials Replacement Fee	Market value
Federal Background Check	\$28.00
Graduation Fee Late Application (after 3rd wk. of term)	\$38.50
Health Center Fee	\$34.00 per semester
HPE Equipment Replacement Fee	Market value
Installment Payment Plan Enrollment Fee	\$50.00 per semester maximum
Internal Revenue Service/1098T penalty for incorrect name/SSN match	\$100.00
International Student Health Insurance	pass-thru charge, set by Ins. Carrier-Variable
International Student Program Fee	\$75.00 per semester
Late Class Add Fee (Charged for each course added after the last published date to add a class)	\$50.00 per course
Late Payment Fee	\$50.00 per month
Late Registration Fee	\$75.00
MAT Test	\$90.00
Ohio Attorney General Payment/Collection Fee	Variable
Parking Per day without permit	\$5.00

Parking Permit – Students, Fall & Spring (optional 0-5 credit hours)	\$115.00 per semester
Parking Permit – Students, Summer Term (optional 0-5 credit hours)	\$58.00
Peace Officer Training Academy Fee	\$300.00 per semester
Performance Music Fee	\$75.00 per credit
Proficiency Examination <sup>2</sup>	\$45.00 per course
Student Locker Rental	\$25.00 per year
Study Abroad Fee - Faculty Led	Variable - based on actual travel costs
Study Abroad Fee - Individual	\$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
Transportation Fee, Fall & Spring Terms (Required 6 plus credit hours listed in campus courses)	\$115.00 per semester
Transportation Fee, Summer Term (Required for 6 plus credit hours listed on campus courses)	\$58.00 per semester
Undergraduate Application Fee (first time applicant)	\$45.00
Web-Based Courses Fee (Distance Learning Fee)	\$100.00 per credit hour

<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**

Check Replacement Fee	\$25.00
Child Preschool Laboratory Fee	\$150.00 per semester
Computer-Based Placement Re-Test	\$20.00 per test
Credit Card Convenience Fee (student accounts only)	2.85% minimum of \$3.00
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
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
Photo I.D. Replacement Charge	\$25.00
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>
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

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 \$250.00

For more information, consult 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 Offense \$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.

## Non-Tuition Promise

Tuition and fees are assessed based upon the number of credit hours of enrollment, residency, course, and/or program. 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.

Students should refer to Penguin Tuition Promise (p. 21) if they will be a new first-year, transfer, or re-admitted degree-seeking undergraduate after Spring 2018.

## Non-Tuition Promise Description of 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.

## Fees

### INSTRUCTIONAL FEE

This fee is assessed to all non-tuition promise 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.

### GENERAL FEE

This fee is also assessed to all non-tuition promise 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, and student government.

### INFORMATION SERVICES FEE

This fee is charged to all non-tuition promise 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.

### NON-RESIDENT TUITION SURCHARGES

All non-tuition promise 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 Allegheny, Armstrong, Beaver, Butler, Clarion, Crawford, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lawrence, Mercer, Venango, Warren, Washington, and Westmoreland counties in Pennsylvania; Chautauqua County in New York; and Brooke, Hancock, Marshall, and Ohio counties in West Virginia.

### 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.

### 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.

## COURSE BOOK AND SUPPLY FEE

This fee represents the cost for electronic materials such as eBooks that are used in designated course(s). This fee is non-refundable after the 100% tuition refund period and cannot be appealed.

## 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.

## DISTANCE EDUCATION LEARNING FEES

This fee is to offset the cost of technology and support needed to support fully-online programs.

## 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.

## 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.

## PARKING FEE (OPTIONAL)

This fee is optional each term for non-tuition promise 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.

## PERFORMANCE MUSIC 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. It is assessed students taking music lessons and is applied on a per-credit basis.

## 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.

## STUDIO ART FEE

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 purpose 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, 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.

## TRANSPORTATION FEE

This fee is charged to all non-tuition promise 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 six 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.





list of the possible fines that could be assessed to a student who is found responsible, please visit the Student Conduct Office (<https://ysu.edu/student-conduct/code-of-conduct>) website.

## Non-Tuition Promise Rates

### Student Fees and Charges

Effective Fall 2018

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

#### TUITION

#### INSTRUCTIONAL FEE

##### Undergraduate Non-Tuition Promise

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 hour

#### GENERAL FEE

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

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 graduate 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 Allegheny, Armstrong, Beaver, Butler, Clarion, Crawford, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lawrence, Mercer, Venango, Warren, Washington, and Westmoreland counties in Pennsylvania; Chautauqua County in New York; and Brooke, Hancock, Marshall, and Ohio counties in West Virginia.

#### AFFORDABLE TUITION ADVANTAGE SURCHARGE

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)

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)

##### 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

##### 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

#### COLLEGE FEES

##### BEEGHLY COLLEGE OF EDUCATION (JUNIOR AND ABOVE)

1 to 11 credits	\$8.00	per credit hour
12 to 18 credits	\$96.00	per semester
Over 18 credits	\$8.00	per credit hour

##### BITONTE COLLEGE OF HEALTH & HUMAN SERVICES (JUNIOR AND ABOVE)

1 to 11 credits	\$12.50	per credit hour
12 to 18 credits	\$150.00	per semester
Over 18 credits	\$12.50	per credit hour

##### COLLEGE OF CREATIVE ARTS & COMMUNICATIONS (ALL UNDERGRADUATES)

1 to 11 credits	\$9.00	per credit hour
12 to 18 credits	\$108.00	per semester
Over 18 credits	\$9.00	per credit hour

##### COLLEGE OF LIBERAL ARTS & SOCIAL SCIENCES (JUNIOR AND ABOVE)

1 to 11 credits	\$8.50	per credit hour
12 to 18 credits	\$102.00	per semester
Over 18 credits	\$8.50	per credit hour

##### COLLEGE OF SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS (JUNIOR AND ABOVE)

1 to 11 credits	\$25.00	per credit hour
12 to 18 credits	\$300.00	per semester
Over 18 credits	\$25.00	per credit hour

##### WILLIAMSON COLLEGE OF BUSINESS ADMINISTRATION (JUNIOR AND ABOVE)

1 to 11 credits	\$20.00	per credit hour
12 to 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.

Taught by the High School teacher at student's high school	\$41.64	per credit hour
Taught by YSU Instructor at High School	\$83.28	per credit hour
Taught by YSU Instructor online/campus	\$166.55	per credit hour

**HOUSING CHARGES****Housing Charges**

Room and Board per academic year	\$9,312.00 (Payable as follows: \$4,656.00 fall semester, and \$4,656.00 spring semester)
Residence Hall Application Fee (academic year and/or summer)	\$35.00
Single Room Surcharge	\$1,400.00 per semester

**Student Housing During Academic Breaks**

1 to 3 days (no meals, per day)	\$26.00
Per week (no meals, per week)	\$182.00

**Summer**

Summer Room and Board	\$285.00 (includes 10 meals per week)
Weller House Apt rates prorated for current tenants	\$400.00 per month

<b>Voluntary Board Plan</b>	(students not in University housing) go to <a href="https://www.dineoncampus.com/ysu/meal-plan-purchase">https://www.dineoncampus.com/ysu/meal-plan-purchase</a>
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**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	\$815.00 per month
2 bed/ 2 bath	\$690.00 per month
4 bed/ 2 bath	\$600.00 per month

**Courtyard Expanded Room Rates**

4 bed converted to 6 bed (single bed)	\$400.00 per month
4 bed converted to 6 bed (full-size bed)	\$500.00 per month

**VOLUNTARY BOARD PLAN (STUDENTS NOT IN UNIVERSITY HOUSING) PLEASE GO TO Dine on Campus (<http://catalog.ysu.edu> [HTTPS://WWW.DINEONCAMPUS.COM/YSU/MEAL-PLAN-PURCHASE](https://www.dineoncampus.com/ysu/meal-plan-purchase)) OR 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**

ACT Test Fee	\$55.00
Art Usage Fee	\$29.00 per course
Career Service Fee - Level 1 - Freshman and Sophomore	\$1.75 per credit hour
Career Service Fee - Level 2 - Junior and Senior	\$2.75 per credit hour
College Level Examination Program Test Fee (CLEP)	\$25.00
College over 60 Registration fee	\$5.00
Course Book, eBook, and instructional supplies	Variable
Credit by Examination <sup>1</sup>	\$20.00 per credit hour
Deferred Payment fee (employer paid only)	\$50.00
Equipment & Materials Replacement Fee	Market value

Federal Background Check	\$28.00
Graduation Fee	\$65.00
Graduation Fee Late Application (after 3rd wk. of term)	\$38.50
Health Center Fee	\$34.00 per semester
HPE Equipment Replacement Fee	Market value
Installment Payment Plan Enrollment Fee	\$50.00 per semester maximum
Internal Revenue Service/1098T penalty for incorrect name/SSN match	\$100.00
International Student Health Insurance	pass-thru charge, set by Ins. Carrier- Variable
International Student Program Fee	\$75.00 per semester
Late Class Add Fee (Charged for each course added after the last published date to add a class)	\$50.00 per course
Late Payment Fee	\$50.00 per month
Late Registration Fee	\$75.00
MAT Test	\$90.00
Ohio Attorney General Payment/ Collection Fee	Variable
Parking Per day without permit	\$5.00
Parking Permit – Students, Fall & Spring (optional 0-5 credit hours)	\$115.00 per semester
Parking Permit – Students, Summer Term (optional 0-5 credit hours)	\$58.00
Peace Officer Training Academy Fee	\$300.00 per semester
Performance Music Fee	\$75.00 per credit
Proficiency Examination <sup>2</sup>	\$45.00 per course
Student Locker Rental	\$25.00 per year
Study Abroad Fee - Faculty Led	Variable - based on actual travel costs
Study Abroad Fee - Individual	\$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
Transportation Fee, Fall & Spring Terms (Required 6 plus credit hours listed in campus courses)	\$115.00 per semester
Transportation Fee, Summer Term (Required for 6 plus credit hours listed on campus courses)	\$58.00 per semester
Web-Based Courses Fee (Distance Learning Fee)	\$100.00 per credit hour

<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**

Check Replacement Fee	\$25.00
Child Preschool Laboratory Fee	\$150.00 per semester
Computer-Based Placement Re-Test	\$20.00 per test
Credit Card Convenience Fee (student accounts only)	2.85% minimum of \$3.00
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
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
Photo I.D. Replacement Charge	\$25.00
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>
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**

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	
\$250.00	

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 Offense \$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.

## Reduction/Refund of Fee 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
6 weeks or more	Thru the 14th day	15th day and later
Less than 6 weeks	15% of course duration	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.

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.

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.

## 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 situations, 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 \$245 million, is committed to providing the "edge of excellence" for the University, providing more than \$8.3 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.ysu.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.ysu.edu/finaid/scholar/est\\_scholar.cfm](http://cfweb.cc.ysu.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.ysu.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.ysu.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.ysu.edu/content/office-financial-aid-and-scholarships>) for more information).
- **Federal Perkins Loan:** A Federal Perkins Loan is a low-interest (5%) educational loan available to undergraduate and graduate students with financial need. Federal Perkins Loan eligibility is based on financial need and is determined by the results of the Free Application for Federal Student Aid (FAFSA). Students must attend school at least half-time to be eligible for the Perkins Loan. Repayment and interest charges are deferred for nine months after the student graduates or drops below half-time enrollment. Complete the FAFSA by February 15, as funds are limited. Additional information on Perkins Loan Online Payments and Exit Counseling can be found on this website (<https://www.heartlandecsi.com>).
- **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.ysu.edu/content/>

[office-financial-aid-and-scholarships/student-loans](http://www.ysu.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.

Please see the department's website (<http://www.ysu.edu/content/office-financial-aid-and-scholarships/student-loans>) for the most current information on all federal loan programs.

### 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 and State of Ohio regulations require that Youngstown State University review the academic progress of students annually, whether they are a previous aid recipient or not. SAP is evaluated during the spring semester. The purpose of this review process is to measure whether a student is making satisfactory progress towards his or her educational goals. All federal programs and the Ohio College Opportunity Grant (OCOG) are affected when a student is not in compliance with the Satisfactory Academic Progress Policy. (The Pennsylvania Higher Education Assistance Grant (PHEAA) is not

governed by the Satisfactory Academic Progress Policy, 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 Youngstown State University are required to maintain a minimum cumulative grade point average. Undergraduate students must maintain a minimum 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; W-withdrawal. For incompletes, the credit hours apply to the term the student was enrolled, not the term the student was making up the incomplete. Students who wish to improve their cumulative GPA by repeating a course will be subject to a GPA recalculation. However, 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.

**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 (between 90 and 110 hours) or bachelor's degree (between 180 and 216 hours), 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 School of Graduate Studies.

*Please Note:*

- All credit hours, including hours accepted as transfer credit, are included in the maximum time frame calculation regardless of the number of degrees a student chooses to pursue.
- All terms of attendance are reviewed including terms of remedial coursework or when no federal aid was received.

### 3. Percentage Completion

At the time of the annual assessment, completed hours as a percentage of attempted hours, must meet the following minimum requirements:

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

Percentage completion is calculated by dividing completed hours by cumulative hours attempted. For 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; W-withdrawal. For Incompletes, 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 to review conditions that can include: severe physical or mental illness or injury of the student or immediate family, death of a relative, or other mitigating circumstances. Appeals will be evaluated by the Satisfactory Academic Progress Appeal Committee, which will respond in writing with the decision within 30 days, whether approved or denied.

Students who do not appeal, or who are denied by the Committee, will not be eligible for federal financial aid programs effective summer semester and until they satisfy all deficiencies without receiving federal student aid funds. Federal regulations require students who successfully appeal to be placed on a semester based Financial Aid Probation and Academic Progress Plan. At the end of the probationary term, the semester based grade point average, semester based completion percentage, and/or semester based academic action plan requirements must be met to receive federal aid for the subsequent semester unless across-the-board compliance with overall SAP was established. The decision made by the Satisfactory Academic Progress Appeal Committee is final. As previously indicated, students can expect to receive an appeal decision via U.S. mail within 30 days of the office receiving their Satisfactory Academic Progress Appeal form.

## Financial Aid Refund Policy

The refunding of financial aid funds to the appropriate funding source corresponds to federal regulations, the Return of Title IV fund requirements and YSU's refund policy regarding student fees upon withdrawal from class(es). This policy is explained in greater detail in the Undergraduate Bulletin.

## 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/afsa/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

**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.ysu.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 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.ysu.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. 291) 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.ysu.edu/administrative-offices/registrar/registrar-home>) website.

## Credit Hours/Class Standing/Majors

In all cases, learning in for-credit courses is guided by a qualified instructor and includes regular and substantive student-instructor interaction.

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.

Alternatively, a web-based semester hour will be defined as the learning that takes place in at least 45 hours of learning activities, which include time in reviewing lectures or class meetings online, laboratories, examinations, presentations, tutorials, preparation, reading, studying, hands-on experiences, and other learning activities or a demonstration by the student of learning

equivalent to that established as the expected product of such a period of study.

## 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 approved 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 and 25 hours per week during breaks. 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 International Programs Office 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 International Programs Office (<https://cms.ysu.edu/administrative-offices/center-international-studies-and-programs/cisp-home>) website.

## International Student Health Insurance

Enrollment in YSU's international student health insurance plan is mandatory for all international students (F and J status). 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 International Programs Office **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 (p. 40).) 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 (TSA) 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. 37) 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 within the period established for each semester. A grade of "**W**" shall appear on a student's academic record for any course withdrawal(s) processed after the 14<sup>th</sup> day of the Fall or Spring semester through the 60% period of the semester. For summer semester courses, a grade of "**W**" shall appear on a student's academic record for any course withdrawal(s) processed after the 7<sup>th</sup> day of a session through the 60% period of the session. 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.ysu.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.**

## 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 Integrity

Academic integrity is essential to the educational process and serves to uphold the educational mission of the University. Therefore, all members of the University community have a responsibility for maintaining high standards of honesty and ethical practice with regards to their academic endeavors. Students should consult with their instructor if they are not sure what may constitute a violation of the Academic Integrity policy. The full policy can be found in Article III. 1. of *The Student Code of Conduct*.

Although instructors are responsible for taking all reasonable precautions to limit the possibility of students violating the Academic Integrity policy, students share in this responsibility and should report any suspected violations to the instructor.

After the instructor has identified a possible violation of the policy, they must 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 instructor 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 an instructor concludes that the student is responsible for a violation of the Academic Integrity policy, they may impose a sanction, including the following:

- official warning
- lower the grade on the exam, paper, or assignment in question
- lower the student's final grade for the course in question
- request additional action from the Academic Grievance Committee via a hearing

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

- accept the charge and sanction(s) offered by the instructor, which is acknowledged by signing the Academic Integrity form
- accept the charge, but decline the sanction(s) offered by the instructor; this will then move the case before the Academic Grievance Committee for a hearing
- decline the charge and the sanction(s) offered by the instructor; this will then move the case before the Academic Grievance Committee for a hearing

Regardless of whether the student chooses to sign the Academic Integrity form, any case in which the student may face removal from their academic program or college, or University suspension or expulsion, requires a hearing before the Academic Grievance Committee to ensure due process for the student. A representative from the Office of Student Conduct must be present at all such hearings to serve in an advisory capacity.

In situations wherein the student already has a prior recorded violation of the Academic Integrity policy, an additional violation of the policy will require referral to the Office of Student Conduct for possible additional charges.

*The Student Code of Conduct* (<https://cms.yzu.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.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.yzu.edu/sites/default/files/Academic%20Grievance%20Form.pdf>) 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.

A student checklist (<https://www.yсу.edu/sites/default/files/2017%20Student%20Checklist%20for%20Hearing%20Prep.pdf>) and hearing advisor guidelines (<http://www.yсу.edu/sites/default/files/2017%20Student%20Hearing%20Advisor%20Guidelines.pdf>) are also available.

## Student Complaints

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

If students experience a problem on campus, they are encouraged, but not required, to try resolving it by speaking directly with the staff, faculty member, or administrator with whom they have had an issue. If the problem still exists, the following resources are provided to aid a student in coming to a resolution.

## Academic-Related Complaints (Excluding Grade Appeals)

Academic-related complaints are student complaints related to services and responsibilities provided by 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.

Students can submit a complaint here. ([https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout\\_id=2](https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout_id=2))

YSU will keep student information confidential to the fullest extent of the law. Students who desire to make an anonymous complaint are encouraged to use YSU's [ethics reporting process](https://secure.ethicspoint.com/domain/media/en/gui/49559) (<https://secure.ethicspoint.com/domain/media/en/gui/49559>), which is hosted by a third party and can maintain students' anonymity.

## Academic-Related Complaints with Grade Appeals

Student complaints concerning academic matters related to 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, or involving 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, must follow procedures outlined here (<https://catalog.yсу.edu/undergraduate/general-information/academic-policies-procedures/academic-grievances>).

## Tuition Appeals

Any withdrawal or reduction in academic hours **after** the posted schedule 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** (three semesters). Appeals pertaining to terms beyond this one-year time limit will not be accepted. All applications for involuntary withdrawal must be

documented, and applications 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

More information can be found here (<https://catalog.yсу.edu/undergraduate/general-information/tuition-fees-charges>).

## Discrimination, Harassment, or Retaliation

The Director of Equal Opportunity and Policy Development 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.

More information can be found here (<https://catalog.yсу.edu/undergraduate/general-information/office-equal-opportunity-policy-compliance>).

## Non-Academic Complaints

A non-academic complaint is 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.

Complaints or concerns not listed here can be filed through YSU's reporting system ([https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout\\_id=2](https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout_id=2)). YSU will keep student information confidential to the fullest extent of the law. Students who would like to make an anonymous complaint are encouraged to use YSU's [ethics reporting process](https://secure.ethicspoint.com/domain/media/en/gui/49559) (<https://secure.ethicspoint.com/domain/media/en/gui/49559>), which is hosted by a third party and can maintain student anonymity.

## Other Complaints

Complaints or concerns not listed here can be filed through YSU's reporting system ([https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout\\_id=2](https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout_id=2)). YSU will keep student information confidential to the fullest extent of the law. Students who would like to make an anonymous complaint are encouraged to use YSU's [ethics reporting process](https://secure.ethicspoint.com/domain/media/en/gui/49559) (<https://secure.ethicspoint.com/domain/media/en/gui/49559>), which is hosted by a third party and can maintain student anonymity.

## Complaints to External Agencies

### Student Complaints to the Ohio Department of Higher Education

The Ohio Department of Higher Education (ODHE) is responsible for responding to formal complaints against public, independent non-profit and proprietary institutions of higher education in Ohio. Although the ODHE has limited authority over colleges and universities and cannot offer legal advice or initiate civil court cases, the Chancellor's staff will review submitted complaints and work with student complainants and institutions.

#### Complaints not under the Chancellor's jurisdiction:

- Complaints filed more than two years after the incident
- Grade disputes
- Student conduct violations
- Criminal misconduct
- Violations of federal law

If a student is unable to resolve a complaint through YSU's established complaint process, the student should contact the Ohio Department of Higher

Education to use the online complaint form (<https://www.ohiohighered.org/students/complaints>).

## Student Complaints to the Pennsylvania Department of Education

For additional information, contact:

# Pennsylvania Department of Education

## Bureau of Postsecondary and Adult Education

**333 Market Street, 12th Floor  
Harrisburg, PA 17126-0333**

If a student is unable to resolve a complaint through YSU's established complaint process, the student should contact the Pennsylvania Department of Education to use the Higher Education Complaint Form (<http://www.education.pa.gov/Documents/Postsecondary-Adult/College%20and%20Career%20Education/Colleges%20and%20Universities/Higher%20Education%20Complaint%20Form.pdf>).

## Student Resources:

Student Outreach Support (<https://ysu.edu/student-experience/student-outreach-support>)

Director: Ms. Nicole Kent-Strollo

Kilcawley Center 2101

(office) 330.941.4721

(cell) 330.717.2613

Student Government (<http://sga.ysu.edu>)

The YSU Student Government supports students and assists them with the proper procedures regarding the filing of and hearings for academic related complaints with grade appeals. For more information, click here (<http://sga.ysu.edu>).

## 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.yzu.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 Catalog*. Courses taken for the minor may not be counted toward the student's major, and courses taken for a major may not be counted toward a student's minor. 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

### First Year Experience at Youngstown State University

The First Year Experience (FYE) courses at Youngstown State University are designed to assist incoming students during their transition from high school to college. The program also assists students who may be transferring from a different university.

Incoming freshmen are required to pass (with a grade of "C" or better) their FYE General Education requirement in their first 24 credit hours.

By discussing and writing about topics including Career Awareness, transition to college, and the Common Intellectual Experience, PenguinThink, as well as participating in at least three campus activities, first-year students will begin to feel comfortable on campus and connect with the university.

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## The Office of First Year Experience Mission Statement

The Office of First Year Experience supports the creation, implementation, evaluation/assessment, and improvement of the First Year Experience courses which are General Education requirements at YSU.

## Director of First Year Experience

Dr. Karen Becker kabecker@ysu.edu 330-941-3544 3046A 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, campus resources, 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 learn to articulate varying points of view regarding the common intellectual 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 improve written communication and develop critical thinking
3. Students will explore non-cognitive skills necessary for success in college and career-life

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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. Each semester, students have an opportunity to enter the *PenguinThink* Contest for a scholarship applied toward their sophomore year YSU tuition.

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## Career Awareness

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 are involved in the classroom discussions.

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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## Campus Activities

It is required that students in FYE courses complete three to 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
- On campus and local lecture series
- Academic resources for tutoring and academic assistance
- Volunteer opportunities
- Other events put on by different departments and organizations on campus

## 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. 55)

#### Overview of Components:

- Career Planning: ODHE requirement - Career Services/varies by course
- Common Intellectual Experience: "PenguinThink" [2018-19: Difference]
- Campus Activities: Participate in three 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.ysu.edu/general-education/first-year-experience-learning-goals-and-outcomes>) webpage.

### B. Core Competencies (p. 55)

#### 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. 51), Natural Sciences (p. 52), Social Sciences (p. 52), and Social and Personal Awareness (p. 53)

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. 55)

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.

### Applied Associate Degrees

COURSE	TITLE	S.H.
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
Mathematics (no more than one course)		
First Year Experience		
Select two courses from two of the three following areas:		
Natural Science		
Arts and Humanities		
Social Science		

Students in Applied Associates Degree Programs must take a minimum of six general-education courses, including Writing I and Writing II, one course in mathematics, two courses representing two of the following domains: natural science, arts and humanities, social science, and a first-year experience course. To ensure transferability of an Associates Degree within the State of Ohio, students should take only Ohio Transfer Module (OTM) Approved Courses in arts and humanities and social science.

### Academic Associates Degrees at YSU

Students in the Associates of Arts Program must fulfill the same Gen. Ed. requirements as required for Baccalaureate Programs (with exception of the capstone.) To ensure transferability of an Associates Degree within the State of Ohio, students should only take Ohio Transfer Module (OTM) Approved Courses.

## 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	
ART 2648	Experience Art: Social and Behavioral Perspectives	3
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 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 Theatre <sup>1</sup>	3
THTR 1560	Introduction to Theatre <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 <sup>1,2</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 1503H	Honors 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 <sup>4</sup>	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 1510 & 1510L	Chemistry for Allied Health Sciences and Chemistry for the Allied Health Sciences Laboratory	4
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 1503 & 1503L	Physical Geography and Physical Geography Laboratory <sup>1</sup>	4
GEOG 1503H & GEOG 1503L	Honors Physical Geography and Physical Geography Laboratory <sup>1</sup>	4
GEOG 2630	Weather	4

& 2630L	and Weather Lab <sup>1</sup>	
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
MUHL 3771	Music History and Literature 1	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 or PHLT 1500 or RESC 1500	Introduction to Online Learning in Health Professions	3
BUS 1500 or BUS 1500H	Exploring Business Honors Exploring Business	3
CCAC 1500	College Success	3
COUN 1589	Success in Career and Life Planning	3
ENGR 1500 & ENGR 1550	Engineering Orientation and Engineering Concepts	3
ENGR 1500H & ENGR 1550H	Honors Engineering Orientation and Honors Engineering Concepts	3
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

## 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. 48)

## Core Competencies

### Writing

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

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

### Speaking

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

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

## 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

<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:](https://reports-cems.transfercredit.ohio.gov/pg_6?17195033559833::NO:6:))

## 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 & MECH 4809	Mechanical Systems Design 1 and Mechanical Systems Design Laboratory and Mechanical Systems Design 2	6
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

### Career & Academic Advising

*The Office of Career & Academic Advising provides holistic, career development services and programs to YSU students from freshmen to senior years as well as to alumni.*

Exploratory career & academic advising is provided to first/second year students by Career & Academic Advisors and career and job search guidance is provided to third/fourth year students by Career Management Coordinators.

To enhance student satisfaction and post-graduate success, the Career-Academic Advisors

- provide individualized career exploration and planning assistance. This personalized process ensures that students make well-informed decisions and create a secure plan for reaching their career goals.

To prepare students for post-graduate success, Career Management Coordinators

- provide marketing (resume and interview) and job search skills services
- foster positive relationships with hiring employers to offer YSU students and graduates a broad range of employment opportunities
- connect students with employers through a variety of recruitment activities including career fairs
- Job/internship postings from over 3,000 local, regional and national employers

Central to employment and employer networking opportunities is Handshake (<https://ysu.joinhandshake.com/login>). This is a web-based application that makes it possible for students and alumni to connect with hiring employers, 24-hours-a day/7-days-a-week. Through Handshake students and alumni can search job listings, upload their resumes for review by Career Coordinators, and send resumes directly to employers. Students also receive notifications of employer networking events and sign up for interviews with employers on YSU's campus. For more information, visit Career & Academic Advising (<http://www.ysu.edu/career-academic-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 Room 2082, Kilcawley Center. Our office hours are Monday - Friday, 8:00 a.m. - 5:00 p.m. Our phone number is (330)

941-3737 and/or visit Student Counseling Services (<http://www.ysu.edu/student-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 5:00 a.m. to 9:00 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>).

## 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, as well as offices for Student Government, Student Media, and Rookery Radio. 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 & More is a popular place for quick snacks and beverages, along with U.S. postage stamps and single-dose healthcare items. Visit Pete's Treats & More to choose delicious chocolates and candy favorites in glass candy jars. Pete's Treats & More 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 & More. Pete's Points are also accepted at many nearby locations both on and off campus and are listed at Times2Dine (<http://times2dine.ysu.edu>). Stop in the Kilcawley Center Staff Office for more information. Visit Welcome to GET (<https://get.cbord.com/ysu>) to add Pete's Points or flex on the fly.

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 Office of the Vice President for Student Affairs, and the Office of Student Conduct. The upper level also includes Career and Academic Advising, Disability Services, Student Counseling Services, and Student Outreach and Support. Student Activities, Student Government, and student organizations/mailboxes are located in west end of Kilcawley, as is the Center for Student Progress. The Andrews Student Recreation and Wellness Center can also be accessed from the upper level of Kilcawley Center.

The YSU Penguin Xing is where students can find popular software programs on the PCs and access to the Internet. The Penguin Xing 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 takes photos for all faculty, staff and student ID Cards on campus. A fax service is also available and includes international faxing. The Penguin Xing is located on the upper level of the Center near the main lobby.

The east wing of Kilcawley Center is Kilcawley House, where the Office of Housing and Residence Life is located on the first floor.

## Mercy Health Student Health Center

The Mercy Health Student Health Center is located on the corner of Wick and Lincoln Avenue. The Center provides health care to all currently enrolled YSU students – both resident and commuter students. These services are provided because of the Student Health Fee of \$34 that is paid by all students each semester. The mandatory fee provides revenue to Mercy Health System to give students access to their Primary Care Facility. The center will be staffed by a full-time primary care physician and advanced practice provider. It will also provide the following services below:

Full service primary care practice:

- Establish and develop continuity of care
- Address acute issues
- Walk-In-Care location for non-scheduled visits
- Preventative care
- Extended hours
- Lab draw site
- Services also include access to MyChart. This is a patient portal which allows direct communication with the practice and provider, prescription refills, electronic visits and access to a patient's medical record.

Mental health services:



- Mental health, behavioral health and addiction issues addressed
- Two half-days per week
- Psychiatrist and psychiatric advanced practice provider

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>).

## 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.

## 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 staff 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, microfridge, 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, microfridge, 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 a microfridge 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 microfridges, beds, desks, and wardrobes similar to those found in Lyden House.

Wick House provides a large lounge on the first floor and laundry facilities in the basement. 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, 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 2011, 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.

This location is open to students, staff, and faculty, as well as members of the community are also welcomed.

## Application for Housing

Applications are available online at the Housing and Residence Life (<http://housing.ysu.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.ysu.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 Penguin Xing 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. Student programming offerings include Welcome Week, Homecoming, YSU Serves Week, Diversity Programming Series, and other events throughout the year.

For more information visit the Student Activities (<http://cms.ysu.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 Zac Brown Band, Judah & the Lion, Migos, and Andy Grammer 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, Kilcawley Center Annex.

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
- Dana Guitar Association
- Dance Club
- Dance Ensemble
- Debate Club
- Delta Sigma Theta Sorority
- Delta Zeta Sorority
- Economics Club
- Emergency Medical Services Organization
- Enactus
- Exercise Science Club
- Film Club
- Guinathon
- Greek Campus Life
- Health Education and Physical Education Club
- Hospitality Management Society
- Institute of Electrical and Electronic Engineers
- Institute of Industrial Engineers
- Interfraternity Council
- InterVarsity Christian Fellowship
- Indian Student Association
- Italian Club
- Jazz Society
- Jewish Culture Club
- NEOMED
- National Alliance on Mental Illness on Campus
- National Pan-Hellenic Council (NPHC)
- Ohio Collegiate Music Educators Association
- Orthodox Christian Fellowship
- Panhellenic Council
- Pella Penguins
- Philosophy and Religious Studies Club
- Phi Mu Alpha Sinfonia (Music)
- Phi Sigma Rho Engineering Sorority
- Relay for Life
- Rookery Radio
- Room of Requirement
- Rotaract
- Saxophone Society
- Sigma Alpha Epsilon Fraternity (SAE)
- Sigma Chi Fraternity (SC)
- Sigma Tau Gamma Fraternity (STG)
- Society of Automotive Engineers
- 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 Dietetics
- Students In Fashion and Interiors
- Theta Chi Fraternity
- Urban Gaming Club
- Women in Science
- YSUnity SOGIE 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 9 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.

## 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.

## Student Media

The University supports multiple student media outlets. Students can showcase their talents through *The Guin*, a digital year book; *The Jambar*, a weekly newspaper; *The Penguin Review*, an annual literary magazine; *The Yo Magazine*, an annual magazine; and Rookery Radio, an online radio station.

Student media is student run. Policies and procedures concerning student publications are prepared, reviewed and applied by the Student Publication Committee.

## 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
- Clay Target
- Equestrian
- Fencing
- Hip Hop
- Ice Hockey
- Ice Skating
- Men's Lacrosse
- Women's Lacrosse
- Paintball
- Racquetball
- Rock Climbing
- Women's Rugby
- Soccer
- Swimming
- Tennis
- Ultimate Frisbee
- Men's Volleyball
- Women's Volleyball
- Wrestling

## Theatre and Dance

All students are encourage to get involved in University Theatre, 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 Theatre 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 Theatre productions are presented in Bliss Hall, the performing arts complex which contains Ford Theatre, a 400-seat standard proscenium theatre, and the Spotlight Theatre. Besides accommodating major productions, the Spotlight Theatre 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 Theatre Festival and The American College Dance Festival offer undergraduate research opportunities to students.

For more information visit the Theatre and Dance (<http://www.yсу.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.yсу.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 Cliffe 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.yсу.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.yсу.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.yсу.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 Leader Program**

The Emerging Leader Program provides sophomore 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.

### **The Harry M. Meshel legacy AWARD**

The Harry M. Meshel Legacy Award, established during the 2017-2018 academic year by the Student Government Association, is in honor of the late Mr. Harry M. Meshel. An influential political figure, Mr. Meshel made immense contributions to the valley that simply cannot be measured. This award is in recognition of the values of: public service, civics, education, culture, and dedication to one's hometown, each of which he brilliantly possessed.

This award is bestowed upon a Youngstown State University student, who may or may not be a member of the Student Government Association. The individual must have displayed the qualities Mr. Meshel encompassed, specifically the commitment to public service for the Greater Youngstown Community.

### **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 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 70 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 Support Services

### Center for Student Progress

#### 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. An academic coach is your go-to person for college success. Coaches partner with you to help you understand the "why" and the "how" of learning. Together, you and an academic coach can figure out what's holding you back from being successful and create better study tools to move you ahead. A coach can also help you tackle common academic concerns like managing your time, reducing procrastination, setting goals, performing better on tests, reducing test anxiety, and changing your mindset.

Visit Center for Student Progress Academic Coaching Services (<https://www.ysu.edu/center-for-student-progress>) 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 (<https://www.yсу.edu/center-for-student-progress>) for more information or call (330) 941-3538.

### **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 in 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 in Kilcawley Center/2nd Floor.

Visit Center for Student Progress Disability Services (<https://www.yсу.edu/center-for-student-progress/disability-services>) for additional information or call (330) 941-1372.

### **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 (<https://www.yсу.edu/center-for-student-progress/tutorial-services>) 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. Features of these review sessions include:

- 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 in selected courses.
- Students review 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 (<https://www.yсу.edu/center-for-student-progress/supplemental-instruction>) or call (330) 941-3538.

### **Office of College Access and Transition**

The Office of College Access and Transition (OCAT) ensures students have the resources and support they need to prepare for, transition to, and graduate from college. OCAT's Access programs focus on high school students.

The College Credit Plus (<http://cms.yсу.edu/administrative-offices/ocat/college-credit-plus>) program offers dual enrollment to college-ready high school students. Academic Achievers and Upward Bound are intensive programs focused on students at Warren G. Harding and Youngstown City Schools, respectively. OCAT's Transition services target first-generation and multicultural students including African American, Hispanic, Asian American, and Native American students, and students admitted with restrictions. Our staff supports students through:

- Academic support and Learning Communities
- Mentoring
- Workshops and transition programming
- Campus and community referrals and connections
- Support and resources for minority students
- Summer Bridge and Bridge and Beyond
- Advanced Job Training
- College Tech Prep

For more information, visit the Office of College Access and Transition (<https://www.yсу.edu/ocat>).

### **Mathematics Assistance Center**

The Mathematics Assistance Center (MAC) is an academic support service integrated within the Department of Mathematics and Statistics. Its mission is to offer YSU students assistance in the strengthening of their fundamental mathematical skills necessary for success in the study of mathematics and statistics. This mission is accomplished through services provided such as peer tutoring and the provision of resource materials for independent study.

The MAC has various services available to currently enrolled YSU students. These include:

- Drop-in peer tutoring
- Support for online homework
- Support for ALEKS placement
- Exam review sessions
- Study areas for independent learning
- Access to mathematical and statistical software (MATLAB, SPSS and R)
- Access to textbooks and solution manuals
- Access to formula sheets and other course-related supplements

The main service, drop-in peer tutoring, is provided to YSU students currently enrolled in mathematics and statistics courses ranging from introductory statistics, quantitative reasoning, and college algebra through calculus. The other services are provided as needed and as resources permit.

The Mathematics Assistance Center operates on a **walk-in** basis during its regular business hours (listed below) at its location in Room 408 of the Lincoln Building. The staff of the MAC consists of a coordinator, graduate teaching assistants, undergraduate tutors, student office assistants, and other student personnel.

For additional information, contact the Mathematics Assistance Center at (330) 941-3274. Hours for fall and spring semesters are as follows: Monday through Thursday, 9:00 a.m. to 6:00 p.m., and Friday, 9:00 a.m. to 3:00 p.m. For assistance during summer terms, call the MAC to inquire about its hours of operation. For more information, visit the Mathematics Assistance Center



(<http://cms.ysu.edu/mathematics-assistance-center/math-assistance-center>) website.

## 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 WCOOnline (<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 (<https://www.yzu.edu/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.

## Reading and Study Skills

The Reading and Study Skills course instruction focuses on improving reading rate and comprehension as well as enhancing strategies for studying at the college level. Staffed by instructors and undergraduate peer tutors, courses include RSS 1510A Advanced College Success Skills, RSS 1510B Basic College Success Skills and RSS 1510C STEM Advanced College Success Skills and students may be mandated to take those classes based on the COMPASS® Reading Test (CRT).

For more information about the Reading and Study Skills courses, telephone (330) 941-3307, in the Department of Counseling, School Psychology and Education Leadership in the Beeghly College of Education.

## 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, Testing, and the English Language Institute.

## Information Technology Services

YSU's Information Technology Services (ITS) mission is to enable students, faculty and staff to create a technology-integrated approach to education, scholarship and service. The ITS Division includes five departments: Customer Services, Application Services, Infrastructure Services, Security Services and a Project Management Office.

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, in person and through the IT Services portal. The Tech Desk provides first-level technical support of all the YSU computer systems, telephones, classroom multimedia equipment, and assists 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.yzu.edu/administrative-offices/it-customer-services/tech-desk>) website.

Overall, ITS provides:

- Administrative and student systems including registration and finance
- Student Mobility Support through the Penguin Plug-in stations (Kilcawley and Moser Bridge)
- Desktop technology support in labs and offices
- Classroom technology support
- Wired and wireless networking and security
- Telephone technology support (desktop and cellular)
- Data Center infrastructure support
- Website technology support
- Electronics repair
- Academic technology support with a focus on multimedia classrooms

More than 5,000 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, multiple Computer Labs exist within each of the academic and campus recreational buildings on campus. 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 secure 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.yсу.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>) 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.yсу.edu/administrative-offices/testing-center/testing-center>) website.

## International Programs

International Programs (<http://cms.yсу.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.yсу.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 Avenue and Wood Street.

The staff consists of 23 sworn full time police officers, 69 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.ysu.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 Penguin Alert System website to receive emergency notifications. Students may also register parents' cell phone numbers 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

The parking system for students is divided into two categories, transportation fee and penguin promise.

YSU students who arrived on campus prior to summer of 2018 are in the transportation fee category. These students if enrolled in 6+ credit hours will be assessed a \$115 transportation fee which included a parking permit. Students in the transportation fee category who are registered for less than 6 hours may opt in to the fee by purchasing a permit at \$115. All students must log into the current semester in the YSU portal and follow the link to parking services in order to obtain a permit.

YSU students who arrived on campus for summer 2018 or after are in the penguin promise category. Penguin promise students may purchase a parking permit through the YSU portal. Commuter permits, valid 7AM – 11PM daily are \$45. Overnight permits, valid 24 hours a day in overnight parking lots are \$90. All students must log into the current semester in the YSU portal and follow the link to parking services in order to obtain a permit.

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.yсу.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.

## Alumni and Events

### The Office of Alumni and Events Mission

The Office of Alumni and Events emphasizes a creative, integrated approach to communicating with, and fostering and maintaining relationships with all alumni, students, faculty and staff, and community members. This approach is accomplished through promoting and strengthening relationships with all, while upholding academic traditions and university vision. Alumni Events provides comprehensive programs which promote involvement in and support of the university. University, regional and national events managed by the office are designed to highlight the value of the university.

The Office of Alumni and Events creates, coordinates, and/or assists with university events on campus and in the community. Alumni 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 Office of Alumni and Events is charged with planning and implementing major university events. Annually, these include commencement, the faculty and staff awards banquet, the Canfield Fair, Friend of the University, Youngstown Day, and various lecture series and alumni chapter programs. University Events is also assigned unique one-time events such as political and dignitary visits, presidential installations, groundbreaking ceremonies and news conferences. Alumni Events is charged with executing academic ceremonies that welcome the students to the university, celebrate their accomplishments and scholarship, and honor the culmination of their

academic endeavors. These ceremonies build pride in students and alumni members in the education they earned from YSU.

A remaining aspect of the Office of Alumni and Events is assisting and/or partnering with campus colleges, departments, and programs with their events when requested. Under this realm, Alumni Events institutes the University Look and helps with event planning, logistics, and day of support when needed.

## Campus Facilities

### Campus Development

During its earlier years, Youngstown State University 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 five 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, eight 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 500 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 home, located on the west end of campus across from Stambaugh Stadium, h. 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 Beechly 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.

## Beechly Hall

The four-story, 96,600-square-foot Beechly 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 Beechly College of Education building includes:

- Teacher Education
- Counseling School Psychology, & Educational Leadership
- Center for Human Service Development
- Transition Opportunities in Post-Secondary Settings (TOPS)
- Project Pass
- Community Counseling Clinic

## Bliss Hall

Housing the Cliffe College of Creative Arts and Communication, Bliss Hall, which was completed in 1977, was named in memory of William E. Bliss, a prominent area industrialist. Its facilities include:

- Judith Rae Solomon Gallery
- Student work space/art gallery
- Conference and seminar rooms

## Department of Art

- Photography computer lab with large format printers
- Photography studio lab with black and white enlargers
- Printmaking studio with large format lithography, etching/relief, and screen printing presses
- Fully equipped drawing, printmaking, sculpture and painting studios
- Art Education studio lab with SMART board technology
- 20 station Mac-based digital media computer labs (2) with 3d printers
- 20 station Mac-based graphic design computer labs (2)
- Ceramics studios with gas, electric, raku, and salt kilns, throwing wheels, and hand building stations
- Woodworking studio lab with large stationary equipment
- Dedicated workspace with large 48-inch laser cutter
- Metals fabrication lab with welding and metal working equipment
- Casting foundry with induction furnaces for ferrous and non-ferrous metals and 2-ton overhead bridge crane
- Exterior 3000 square foot work area with one-ton jib crane
- Approximately 21,000 square feet of professional and student experimental gallery spaces
- Individual graduate student studio spaces
- 16 art faculty offices

## Department of Communication

- Full HD television studio
  - 800 sq-foot production floor
  - State-of-the-art LED light grid with ETC ColorSource lighting console
  - 4 JVC HD studio cam (2 on Vinten Osprey Elite pedestals, 1 on jib, 1 handheld)
  - Control room with NewTek 860 Tricaster, Allen & Heath QU-32 Digital audio console and LiveTex graphics work station
- Video editing suite (5 bays)
  - Full Adobe Creative Cloud Suite with Premier
  - 3 sound-proof editing booths
- Mobile Media Units
  - 8 channel Mackie mixers
  - Broadcast headsets
  - H6 Zoom recorders
- Full Audio Theatre Production System

- 16 channel Mackie mixer
- Rode cardioid condenser microphones
- Shure SM58 microphones

## Dana School of Music

- 248-seat Bliss Recital Hall with a Schlicker performance organ
- 80 acoustically controlled music practice rooms equipped with Steinway studio or grand pianos
- Two organ practice rooms with Flentrop practice organs
- 30 faculty office-studios that may be utilized for music instruction
- Multiple music ensemble rehearsal facilities
- Dana Recording Studio features a
  - .12 core Intel Mac tower running Avid Pro-Tools 11, MOTU Digital Performer 7.24, and Apple Logic DAWs software
  - Universal Audio Apollo interfaces and a Tascam DM4800 fully automated mix surface
  - Outboard Kurzweil and Roland keyboards, controllers, and synths
  - Reason 7 and the Native Instruments Komplete 10 software package
  - Shure Large Diaphragm Condenser mics, Audio Technica SDC mics, Shure Beta 58s and 57s, and a matched pair of Cascade Fathead II ribbon microphones
  - Genelec 1031 monitoring system with 7050b Sub

## Department of Theatre & Dance

- Ford Theatre, 400 seat proscenium stage
- Spotlight Arena Theatre, an experimental theatre with flexible seating for up to 250
- Costumer design studio
- Scenic design and construction studio equipped with advanced scenic technology
- Lab theatre/rehearsal studio
- Theatre design studio
- Film screening room
- Makeup and dressing rooms
- Green room
- Box office
- Front-of-house facilities
- Video editing and production suite

## Cushwa Hall

Opened in 1976, this structure houses the Bitonte College of Health and Human Services, as well as the Peace Officer Training Academy, Janitorial Services and Recycling, and the Office of Environmental Occupational Health & Safety (EOHS). One of the largest buildings on campus, it contains 28 classrooms, 49 laboratories, 172 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 1977, DeBartolo Hall, home to the College of Liberal Arts and Social Sciences, houses:

- Department of Economics
- Department of Philosophy & Religious Studies
- Department of Political & International Relations
- Department of Psychology
- Department of Sociology, Anthropology, Gerontology
- Department of History
- Department of World Languages and Cultures

- English & Poetry Center
- Islamic Studies
- Africana Studies
- American Studies
- Gender Studies/Women Studies
- Peace and Conflict Studies
- Dr. James Daze Ethics Center/Rigelhaupt Pre-Law Center
- Center for Judaic & Holocaust Studies.

In this six-story structure are more than 172 offices for faculty and staff, five student lounges and study areas, 15 classrooms, 13 laboratories, a computer terminal room, a 200-seat lecture hall, and special varied laboratories for the Department of Psychology. Building renovations took place in the summers 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 Wee Care Day Care Center, the Rich Center for Autism, 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 Division of Student Success, Payroll, Controller's Office, Enrollment Management, International Programs, Multicultural Affairs, Upward Bound/Scope/Academic Achievers, Procurement Services, Accounts Payable/Purchasing, Associate Provost Student Success, and division of Academic 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, Career and Academic Advising, Disability Services, Student Conduct, Student Counseling Services, Student Media, Student Outreach and Support, Vice President for Student Affairs office, and the Center's staff offices. Student Activities, Student Government, and student organizations/mailboxes are located in west end of Kilcawley, as is the Center for Student Progress.

## Lincoln Building

The Lincoln Building houses the Department of Mathematics and Statistics, the Math Assistance Center, and the offices of distance education and the Office of College Access & Transition, as well as 14 classrooms and 3 laboratories, and 82 faculty and staff offices.

## 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, Testing and the English Language Institute.

## Melnick Hall

Located on Wick Avenue, the YSU Foundation and WYSU-FM are housed in Melnick.

## 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 Stavich Family Bridge over Wick Avenue. The building contains 5 classrooms, 13 specialized computerized laboratories, and 89 faculty & staff offices. The Office of University Bursar, the Office of Financial Aid and Scholarships, the Office of the Registrar, the Penguin Service Center, and the Office of Records are located on the second floor.

The first floor of Meshel hall was recently renovated to include digital speech capture labs, team innovation lab, media production labs, public speech tutoring center, and a state-of-the-art, 50-Seat multimedia communication classroom.

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 McDonough Museum of Art, founded in 1991, is the University Art Museum for YSU and the Valley's premier Center for Contemporary Art. Housed in a twenty thousand square foot facility designed by internationally known architects Gwathmey Siegel & Associates, the Museum stands as a testament to High Modernist design. The Museum features changing exhibitions, installations, performances and lectures by regional, national and international artists, and also functions as public outreach for the Cliffe College of Creative Arts and Communication and the Department of Art, exhibiting work by students, faculty and alumni. In addition, the Museum offers

free lectures, performances and programs organized in collaboration with varying departments on campus and the community at large.

## Moser Hall

Moser Hall, a five-level structure completed in 1967, houses the College of Science, Technology, Engineering, and Mathematics. In addition to 71 research and scheduled laboratories, 8 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 Urban-Regional Studies 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 and produces steam and chilled water for University needs that 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 Business Operations
- Office of the General Counsel
- Division of University Relations
- Alumni and Events Operations
- Marketing and Communications
- Human Resources
- Office of Equal Opportunity and Policy Development
- ASECU Credit Union
- YSU Board of Trustees' meeting room

## 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 44 laboratories, including a planetarium and a greenhouse, 8 classrooms, 71 academic offices, 54 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 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) 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.

In 2015, CURS transitioned to REDI and assumed an added role as "Navigator" in providing research-based, implementation-focused economic development support services for the Mahoning Valley. REDI's focus reflects a "plan-implement" process which parallels the familiar "design-build" process often seen in the architecture and construction industries. This focus will enable REDI to help identify and quantify challenges and opportunities, support economic development implementation, and provide a broad array of support services throughout the Mahoning Valley.

REDI offers federal, state, and private grant-writing, and it provides valuable GIS mapping and data services to a number of local and regional government, nonprofit organizations, and social service agencies throughout the region.

Recent initiatives include studies, strategy development, or project implementation related to Community Crime Prevention, Community Health Initiatives, Green Infrastructure, Urban Transportation, Neighborhood Parks Restoration, Road Condition Assessment, Wayfinding Signage, and Comprehensive Community Planning.

### Center for Human Services Development

The Center for Human Services Development is an externally-funded, community outreach department. With the mission to work with organizations and faculty to build capacity through the support of services and research, the Center's main objective is to increase the ability of organizations to serve the people of the Mahoning Valley. Led by experienced professionals, the Center works to provide a variety of services to community agencies and departments across campus.

#### The scope of the Center is:

- 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 that are working collaboratively to address community needs.

#### Professional Services:

- Technical assistance
- Evaluation
- Grant writing
- Data analysis
- Program and grant management
- Professional development



The Center is housed in the Beeghly College of Education and can be contacted by calling (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 in counseling. 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.

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.

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. Free parking is available. 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 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.

## 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 Special Assistant to the President.

## 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 1260 on the new SAT (or 1760 on the old 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 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 3799Y Special Topics Revitalizing Youngstown 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 after consulting with the instructor, then carefully reviewed by the department chair. Chairs certify that by the standards of the discipline, proposals meet the criteria listed. Contract Honors Proposals are generated online through the Honors Student Dashboard with approval of proposals completed electronically. More information and instructions for using the Dashboard can be obtained by contact the 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 by the published due date.

Completion status is reported by faculty to the Honors Director via the online *Honors Contract Completion Tracking System*. Instructions for accessing the system are sent to faculty via email by the week before finals week.

## University Honors Program Engagement Requirements

### 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.

#### 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. Other organizations include the Poverty Awareness in Youngstown group, MALAINA, and Women in Honors.

#### 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 Global Citizenship.

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

Upon satisfactory completion of Honors requirements, the Honors Director will initiate having the appropriate distinction entered on the student's record and 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. 76) 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.yzu.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.yzu.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.yzu.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 post-secondary 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 post-secondary 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.yzu.edu/administrative-offices/associate-degree-programs/college-tech-prep>) site.

### Youngstown Early college (yec)

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. 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 post-secondary 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)

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

Youngstown State University offers an Associate of Technical Studies degree in electric utility technology, power plant option (EUT/PPT). Students interested in enrolling in the program are encouraged to contact Dan Coyne at [dpcoyne@ysu.edu](mailto:dpcoyne@ysu.edu) or (330) 941-1743.

## 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
Delores E. Crawford, Chair	2019
David C. Deibel, Vice Chair	2020
Anita A. Hackstedde	2021
James E. "Ted" Roberts	2022
John R. Jakubek	2023

Molly S. Seals	2024
Michael A. Peterson	2025
Capri S. Cafaro	2026
Charles T. George	2027
Franklin S. Bennett Jr., Secretary	Not a Trustee
Lexi Roger, Student Trustee	2019
Rocco Core, Student Trustee	2020

### Executive Level

Executive Level	Position
James P. Tressel, MA	President
Joseph L. Mosca, PhD	Interim 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
William M. Sherman, PhD	Special Assistant to the President

### 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
Tammy A. King, PhD	Acting 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, MBA	Manager, Office of Veterans Affairs/ Veterans Resource Center

### 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	Associate Vice President, Facilities Maintenance
Susan Beiling	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	Vice President and General Counsel
Gregory Morgione	Associate General Counsel
Cynthia Kravitz	Associate General Counsel, Director of Equal Opportunity and Policy Development
Allan Boggs	Interim Chief Human Resources Officer

## Division of Multicultural Affairs

Division of Multicultural Affairs	Position
Vacant	Associate Vice President for Multicultural Affairs

## Division of Student Experience

Division of Student Experience	Position
Eddie J. Howard Jr., MA	Vice President for Student Affairs
Joy L. Polkabra-Byers	Director, Campus Recreation & Andrews Recreation & Wellness Center
Kate Fitzgerald	Director, Housing & Residence Life & Program Coordinator, Title IX
Nicole Kent-Strollo	Director, Student Outreach and Support
John L. Young	Director, Kilcawley Center
Erin E. Driscoll	Director, Student Activities and Greek Life

## 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
Leslie Page	Director, First Year Student Services
Becky L. Varian	Director, Center for Student Progress

## 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

## Full-Service Faculty

### A

#### Dr. Martin A. Abraham

Professor of Civil/Environmental and Chemical Engineering  
Graduate Faculty Member  
B.S., Rensselaer Polytechnic Institute, 1982  
Ph.D., University of Delaware, 1987

#### Dr. Ken Adair

Lecturer of Chemistry  
B.A., Ohio Wesleyan University, 1999  
M.S., University of Oregon, 2000  
Ph.D., University of Oregon, 2006

#### 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

#### Farzad Ahmadi

Assistant Professor of Electrical and Computer Engineering  
Associate degree, Rasht Technical and Vocational College, 2005  
M.S. Shahid Beheshti University, 2010

#### 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

#### Joseph Angelo

Lecturer of Marketing  
B.S., Youngstown State University, 1992  
M.S., Youngstown State University, 1995  
M.B.A., Case Western Reserve University, 2004

#### 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. Christopher Arntsen

Assistant Professor of Chemistry  
B.S., University of Connecticut, 2008  
Ph.D., University of California, Los Angeles, 2014

#### 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

**Hoda Atef Yekta**

Lecturer of Management  
 B.S., Tehran Polytechnic University, 2006  
 M.S., Sharif University of Technology, 2008

**Dr. Diana Awad-Scrocco**

Associate 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. Morgan Bagley**

Assistant Professor of Kinesiology and Sport Science  
 B.S., Mount Union College, 2003  
 M.A., Kent State University, 2005  
 Ph.D., Kent State University, 2015

**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. Kevin E. Ball**

Associate Provost and Professor of English  
 B.A., Truman State University, 1992  
 M.A., Truman State University, 1994  
 Ph.D., University of Nebraska-Lincoln, 2000

**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

**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**

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. Coskun Bayrak**

Professor of Computer Science and Information Systems  
 Graduate Faculty Member  
 B.S., Slippery Rock University, 1985  
 M.S., Texas Tech University, 1989  
 Ph.D., Southern Methodist University, 1994

**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. Raymond E. Beiersdorfer**

Professor of Geological and Environmental Sciences  
 B.A., Queens College, City University of New York, 1979  
 M.S., University of California at Davis, 1982  
 Ph.D., University of California at Davis, 1992

**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. Deborah Fairchild Benyo**

Assistant Professor of Biological Sciences  
 B.S., University of New Hampshire, 1985  
 M.S., The Ohio State University, 1987  
 Ph.D., The Ohio State University, 1991

**Claudia A. Berlinski**

Assistant Professor of Art  
 B.F.A., Buffalo State College, 1986  
 M.F.A., The Ohio State University, 1991

**Dr. Paolo Luca Bernardini**

David and Helga Ives Distinguished Visiting Humanities Professor  
 Dott. Lett., University of Genoa (Italy), 1987  
 Ph.D., European University Institute, 1994

**Meghan Bileci**

Lecturer of Social Work  
 B.A., Mount Vernon Nazarene University, 2002  
 M.S.W., Cleveland State University, 2007

**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

**Sheila M. Blank**

Assistant Professor of Nursing  
 B.S.N., Youngstown State University, 2001  
 School Nurse License, Youngstown State University, 2005  
 M.S.N., Youngstown State University, 2007

**Dr. Shelley Blundell**

Assistant Professor of Communication  
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 B.B.A., Washburn University, 2011  
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 Ph.D., University of South Florida, 2018



# 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

### Endorsements

- 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 Council for the Accreditation of Educator Preparation (CAEP). 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.yzu.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 (Special Education: Moderate/Intensive Disabilities is being discontinued and is no longer accepting new students. The department recommends students to enter the Special Education: Mild/Moderate Disabilities program).

## 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.

Jake J. Protivnak, Ph.D.  
Department Chairperson / Professor  
4103 Beeghly College of Education  
(330) 941-1936  
jjprotivnak@ysu.edu

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 Department offers undergraduate Reading and Study Skills courses for students who are interested in improving reading skills.

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, Chair

### Professor

**Kathleen Aspiranti**, Ph.D., Assistant Professor

**Jane Beese**, Ed.D., Associate Professor

**Kristin L. Bruns**, Ph.D., Assistant 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.:** 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

Office: BCOE 2405

Office Phone: (330) 941-3251

Administrative Assistant: Jean Berger

Email Address: jhberger@ysu.edu

## 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.

## Programs

Early Childhood Education (ECE) Grades P-3 (This program is no longer accepting applicants. All applicants interested in teaching in the P-3 classroom will complete the new ECE/ECIS program listed below)

Early Childhood Education/Early Childhood Intervention Specialist (ECIS) Grades P-3 (available Fall, 2017)

- For teaching children who are typically developing, at-risk, gifted, and who have mild/moderate educational needs in the general education classroom.
- 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, 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.yzu.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. Please contact a BCOE academic advisor for more information

## Accreditation

The Teacher Education programs were accredited nationally by the Council for Accreditation for Educator Preparation (CAEP) in Spring 2017. 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, 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

**Pam Epler**, Ph.D., Assistant Professor

**Stacy Graber**, Ph.D., Associate 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., Associate Professor

**Gail Saunders-Smith**, Ph.D., Associate Professor

**Patrick T. Spearman**, Ph.D., Associate Professor

**James P. Tressel**, M.A., Professor

**Abel Waitaha**, Ph.D., Associate Professor

**Lecturer**

**Courtney Cruz**, M.S., Lecturer

**Betty L. Greene**, M.Ed., Senior Lecturer

## Majors

- Early Childhood Education/Early Childhood Intervention Specialist (p. 148)
- Middle Childhood Education, (4-9) (<http://catalog.yzu.edu/undergraduate/colleges-programs/college-education/department-teacher-education-middle-childhood-4-9>)
- Middle Childhood Education, (4-9), Math/LA (p. 159)
- Middle Childhood Education, (4-9), Science/LA (p. 175)
- Middle Childhood Education, (4-9), SS/LA (p. 171)
- Middle Childhood Education, (4-9), Math/Science (p. 167)
- Middle Childhood Education, (4-9) Math/SS (p. 163)
- Middle Childhood Education, (4-9), Science/SS (p. 179)
- Health Education (P-12) - Multi-Age License (p. 152)
- Adolescent/Young Adult Education (7-12) (<http://catalog.yzu.edu/undergraduate/colleges-programs/college-education/department-teacher-education-aya-education-7-to-12>)
- Integrated Language Arts (7-12) - Adolescent License (p. 122)
- Integrated Mathematics (7-12) - Adolescent License (p. 126)
- Integrated Sciences (7-12) - Adolescent License, Biology Concentration (p. 129)
- Integrated Sciences (7-12) - Adolescent License, Chemistry Concentration (p. 133)
- Integrated Sciences (7-12) - Adolescent License, Physics Concentration (p. 141)
- Integrated Sciences (7-12) - Adolescent License, Earth/Space Science Concentration (p. 137)
- Integrated Social Studies (7-12) - Adolescent License (p. 145)
- Italian (P-12) - Multi-Age License (p. 156)
- Physical Education (P-12) - Multi-Age License (p. 183)
- Spanish (P-12) - Multi-Age License (p. 186)
- Visual Arts (P-12) - Multi-Age License (p. 189)
- Special Education: Mild/Moderate Licensure (p. 194)
- Special Education: Moderate/Intensive Licensure (p. 197) (This program is no longer accepting new students and is in the process of being deactivated. The department recommends that students enter the Special Education: Mild/Moderate Licensure program. For more information, please contact Dr. Marcia Matanin, Chairperson, (330) 941-3251 or [mjmatanin@ysu.edu](mailto:mjmatanin@ysu.edu).)

**Minors**

- Coaching Education P-16 Minor (p. 148)

## 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.:** BCOE 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.:** BCOE 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.:** BCOE 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.:** BCOE 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 5801 Early Childhood Generalist Science 2 s.h.**

By exploring science teaching practices and technologies for grades 4-5, the candidates will review teaching methods of science, master the content stated in the Ohio Academic Learning Standards, find and design science programs and lessons, incorporate the national and state standards in teaching science, and strengthen the assessment methods for the science classroom instruction.

**EMCE 5802 Early Childhood Generalist Math 2 s.h.**

By exploring math teaching practices and technologies for grades 4-5, the candidates will review instruction and assessment methods of mathematics, and master the content stated in the Ohio 2017 Learning Standards for Mathematics, and the Common Core Standards for Mathematics.

**EMCE 5803 Early Childhood Generalist Language Arts 2 s.h.**

Candidates will learn language arts content and teaching methods, design integrated lessons, incorporate state and national standards, and utilize assessment methods for grades 4-5.

**EMCE 5804 Early Childhood Generalist the Arts, Health and Fitness 1 s.h.**

Knowledge and application of the Arts, Health, and Fitness related to teaching practice for grades 4-5. Candidates will review content and methods of teaching the Arts, Health, and Fitness content as stated in the Ohio Academic Content Standards. Instruction on pedagogical strategies to include these content areas in the 4-5 curriculum.

**EMCE 5805 Early Childhood Generalist Social Studies 2 s.h.**

Candidates will learn social studies content, teaching methods, design integrated lessons, incorporate state and national standards, and utilize assessment methods for grades 4-5.

**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 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. FOUN 1501 OR EDFN 1501; FOUN 3708, OR EDFN 3708; PSYC 3709; SPED 2630 or SPED 2631, SPED 4854, SPED 5828, SPED 5833, SPED 5835, SPED 5851, SPED 5853, SPED 5864, SPED 5866, SPED 5867; senior status and approval of the chair.

**Gen Ed:** Capstone.

**SPED 4849 Supervised Student Teaching: Mild Moderate/Disabilities 4-12 s.h.**

Must be taken with SPED 4869. Grading is CR/NC.

**Prereq.:** FOUN 3708 OR EDFN 3708; TERG 2610 OR TERG 3710, TERG 3701, TERG 3702, TERG 3703 and STEP block (SPED 4854, SPED 5835, SPED 5864, SPED 5851), SPED 2630 or SPED 2631, SPED 5853, SPED 5866, senior status, and approval of the chairperson.

**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 Learning Needs 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 6907 Guidelines for Teaching Children Who are Deafblind With and Without Concomitant Disabilities 4 s.h.**

This course focuses on understanding and meeting the needs of children with multiple disabilities and/or concomitant conditions in addition to visual impairment in P-12 settings. In particular, this course will emphasize the needs of the child who has combined hearing-vision loss (i.e., deafblindness or dual sensory impairments). The additional concomitant conditions may include autism, traumatic brain injury, intellectual disability, orthopedic impairments, and/or the impact of various syndromes. There is a supervised 30 field experience associated with the course.

**SPED 6908 Practicum in Visual Impairment 2 s.h.**

This course represents the clinical practice/practicum portion of the EDVI program. Fifty hours of practicum experience will take place in a variety of instructional and age/grade level setting serving children with VI.

**Prereq.:** SPED 6907.

**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 Disorders 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 Needs 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 Needs 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.**

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**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 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.

**Gen Ed:** Domestic Diversity, Social and Personal Awareness.

**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.

## 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 Beehly 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
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 3741	Advanced Writing for Teachers <sup>1,2</sup>	3
ENGL 4881	Shakespeare and His World	3
JOUR 4821	Advising Student Media	3
Select one of the following American Literature courses:		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 of the following World/Multicultural Literature courses:		3
ENGL 2610	World Literature (AH/SPA)	
ENGL 2617	Women in Literature (AH/SPA)	
ENGL 2618	American Literature and Diversity (AH/SPA)	
ENGL 2620	African Literature	
ENGL 3732	Images of Women	
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
EDFN 1501	Introduction to Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
TERG 3711	Reading Application in Content Areas, Secondary Years <sup>1,2</sup>	3
EDFN 3708	Education and Society	3
SED 3706	Principles of Teaching Adolescents <sup>2</sup>	3
Preclinical Curriculum		
SED 4800E	English 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 for the Degree: 127 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 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 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.

**Year 1**

Fall		S.H.
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
Semester Hours		15

**Spring**

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
Semester Hours		16

**Year 2**

Fall		
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	
Semester Hours		15

**Spring**

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
Semester Hours		18

**Year 3**

**Fall**

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
Semester Hours		18

**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
Semester Hours		18

**Year 4**

**Fall**

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
Semester Hours		15

**Spring**

SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
Semester Hours		12
Total Semester Hours		127

## 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>		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Mathematics Requirement		
MATH 1571	Calculus 1	4
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		
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
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
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
Preclinical Curriculum		
SED 4800M	Mathematics 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 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 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.

Year 1		S.H.
<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
Semester Hours		16
<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
Semester Hours		16
<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
Semester Hours		13
<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
Semester Hours		17
<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
Semester Hours		16
<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
Semester Hours		16
<b>Year 4</b>		
<b>Fall</b>		
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
Semester Hours		15
<b>Spring</b>		
SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
Semester Hours		12
Total Semester Hours		121

## 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.

Year 1		S.H.
<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
Semester Hours		18
<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
Semester Hours		21

**Year 2**

**Fall**

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
Semester Hours		19

**Spring**

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
Semester Hours		21

**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		3
Physics Elective		3-4
Semester Hours		19-20

**Spring**

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
Semester Hours		21

**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
Biology Elective		5
Semester Hours		17-19

**Spring**

SED 4842	Supervised Student Teaching: High School	10
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SED 4842A	Student Teaching Seminar for Secondary Education	2
	Semester Hours	12
	Total Semester Hours	148-151

## 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)		
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.
- 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.

Year 1		S.H.
<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
Semester Hours		18
<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
Semester Hours		21
<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
Semester Hours		19
<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
Semester Hours		21
<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
Semester Hours		17-18
<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
Semester Hours		21
<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
Semester Hours		17-19
<b>Spring</b>		
SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
Semester Hours		12
Total Semester Hours		146-149

## 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 and 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
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.

**Year 1**

Fall		S.H.
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
Semester Hours		22

**Spring**

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
Semester Hours		21

**Year 2**

Fall		
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
Semester Hours		19

**Spring**

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
Semester Hours		22

**Year 3**

Fall		
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
Semester Hours		18-19

**Spring**

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
Semester Hours		18

**Year 4**

Fall		
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
Semester Hours		15-17

**Spring**

SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
Semester Hours		12
Total Semester Hours		147-150

## 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>		
<b>Core Competencies</b>		
ENGL 1550	Writing 1	12

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 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 \_\_\_\_ 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.

**Year 1**

<b>Fall</b>		<b>S.H.</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
Semester Hours		18



<b>Spring</b>			<b>Spring</b>		
ENGL 1551	Writing 2	3	SED 4842	Supervised Student Teaching: High School	10
MATH 1572	Calculus 2	4	SED 4842A	Student Teaching Seminar for Secondary Education	2
EDFN 1501	Introduction to Education	3		Semester Hours	12
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4		Total Semester Hours	144-147
PHYS 2610	General Physics 1	4	<b>Year 1</b>		
PHYS 2610L	General Physics laboratory 1	1	<b>Fall</b>		
	Semester Hours	19	ENGL 1550	Writing 1	3
<b>Year 2</b>			MATH 1571	Calculus 1	4
<b>Fall</b>			TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
CMST 1545	Communication Foundations	3	CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
PSYC 1560	General Psychology	3	BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4		Semester Hours	18
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5	<b>Spring</b>		
SPED 2630	Individuals with Exceptionalities in Society	3	ENGL 1551	Writing 2	3
	Semester Hours	18	MATH 1572	Calculus 2	4
<b>Spring</b>			EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3	BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
ASTR 1504	Descriptive Astronomy	3	PHYS 2610	General Physics 1	4
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4	PHYS 2610L	General Physics laboratory 1	1
Arts and Humanities GER		3		Semester Hours	19
Earth/Space Elective		3	<b>Year 2</b>		
Physics Elective		4	<b>Fall</b>		
	Semester Hours	20	CMST 1545	Communication Foundations	3
<b>Year 3</b>			PSYC 1560	General Psychology	3
<b>Fall</b>			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 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
GEOG 2630	Weather	3	SPED 2630	Individuals with Exceptionalities in Society	3
GEOL 2602	Introduction to Oceanography	3		Semester Hours	18
Social and Personal Awareness GER		3	<b>Spring</b>		
Biology Elective		5	PSYC 3709	Psychology of Education	3
Physics Elective		3-4	ASTR 1504	Descriptive Astronomy	3
	Semester Hours	21-22	GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
<b>Spring</b>			Arts and Humanities GER		3
SED 3706	Principles of Teaching Adolescents	3	Earth/Space Elective		3
EDFN 3708	Education and Society	3	Physics Elective		4
TERG 3711	Reading Application in Content Areas, Secondary Years	3		Semester Hours	20
TEMC 3707	Science/Technology/Society	3	<b>Year 3</b>		
PHYS 2608	Sound	3	<b>Fall</b>		
Social Science GER		3	CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
Social and Personal Awareness GER		3	GEOG 2630	Weather	3
	Semester Hours	21	GEOL 2602	Introduction to Oceanography	3
<b>Year 4</b>			Social and Personal Awareness GER		3
<b>Fall</b>			Biology Elective		5
EDFN 3710	Educational Assessment	3	Physics Elective		3-4
SED 4800C	Science Methods for Adolescent and Young Adult Learners	3		Semester Hours	21-22
Arts and Humanities GER		3	<b>Spring</b>		
Chemistry Elective		3-5	SED 4842	Supervised Student Teaching: High School	10
Physics Elective		3	SED 4842A	Student Teaching Seminar for Secondary Education	2
	Semester Hours	15-17		Semester Hours	12
				Total Semester Hours	144-147

<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
TEMC 3707	Science/Technology/Society	3
PHYS 2608	Sound	3
Social Science GER		3
Social and Personal Awareness GER		3
Semester Hours		21

<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
Physics Elective		3
Semester Hours		15-17

<b>Spring</b>		
SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
Semester Hours		12
Total Semester Hours		144-147

# 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>		12
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
<b>Preclinical Curriculum</b>		
EDFN 3710	Educational Assessment	3
SED 4800S	Social Studies Methods for Adolescent and Young Adult Learners <sup>2</sup>	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: 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.

**Year 1**

Fall		S.H.
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
Semester Hours		18

**Spring**

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
Semester Hours		15



**Year 2****Fall**

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
Semester Hours		15

**Spring**

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
Semester Hours		15

**Year 3****Fall**

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
Semester Hours		15

**Spring**

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
Semester Hours		16

**Year 4****Fall**

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
Semester Hours		16

**Spring**

SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
Semester Hours		12
Total Semester Hours		122

## 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
Total Semester Hours		18-19

## 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	

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	3
CHFM 3733L	Practicum Preprimary Settings (upper-division status)	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
Total Semester Hours		134

- <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 \_\_\_\_ 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
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- 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.

**Year 1**

<b>Fall</b>		<b>S.H.</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
Semester Hours		18

**Spring**

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		
Semester Hours		18

**Year 2**

**Fall**

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
Semester Hours		18

**Spring**

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
Semester Hours		18

**Year 3****Fall**

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
Semester Hours		17

**Spring**

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
Semester Hours		16

**Year 4****Fall**

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
Semester Hours		17

**Spring**

ECIS 4841	Supervised Student Teaching: ECE/ECIS	10
ECIS 4842	Student Teaching Seminar in ECE/ECIS	2
Semester Hours		12
Total Semester Hours		134

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**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.

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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 & biol 1545I	Allied Health Anatomy and Physiology and	
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	
Subject Area Curriculum		
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
Professional Education Curriculum		
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
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

<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 \_\_\_\_ 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 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.

Year 1		
Fall		S.H.
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
Semester Hours		15
Spring		
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
Semester Hours		15
Year 2		
Fall		
PHLT 3791	Community Health	3

  

PSYC 2692	Human Sexuality	3
BIOL 1545 & biol 1545I	Allied Health Anatomy and Physiology and	5
PHIL 2625	Introduction to Professional Ethics	3
HEPE 2628	Movement for Early Childhood	3
Semester Hours		17
Spring		
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
Semester Hours		15
Year 3		
Fall		
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
Semester Hours		16
Spring		
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
Semester Hours		16
Year 4		
Fall		
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
Semester Hours		14
Spring		
SED 4845	Supervised Student Teaching: Health (K-12) <sup>2</sup>	10
SED 4842A	Student Teaching Seminar for Secondary Education <sup>2</sup>	2
Semester Hours		12
Total Semester Hours		120

<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	
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 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.

#### Year 1

Fall		S.H.
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
Semester Hours		16

#### Spring

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
Semester Hours		16

#### Year 2

Fall		
EDFN 1501	Introduction to Education	3
ITAL 3702	Intensive Italian Review	4
Natural Scienc/ Lab GER		4
Social and Personal Awareness GER		3
Semester Hours		14

#### Spring

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
Semester Hours		17

#### Year 3

Fall		
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
Semester Hours		17

#### Spring

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
Semester Hours		14

**Year 4****Fall**

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
Semester Hours		14

**Spring**

SED 4827	Supervised Student Teaching: Language (K-12)	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
Semester Hours		12
Total Semester Hours		120

<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.

<sup>2</sup> Take ITAL 3798 during even year for 4 sh; or take Elective during odd year for 3 sh.

<sup>3</sup> 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	

<b>Mathematics Requirement</b>		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)		
<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.		
<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>		
Social and Personal Awareness		6
<b>General Education Elective</b>		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>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>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 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
<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 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 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.

**Year 1**

		S.H.
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
Semester Hours		16

**Spring**

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
Semester Hours		16

**Year 2**

		S.H.
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
Semester Hours		16

**Spring**

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
Semester Hours		16

**Year 3****Fall**

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
Semester Hours		18

**Spring**

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
Semester Hours		18

**Year 4****Fall**

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
Semester Hours		15

**Spring**

TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
Semester Hours		12
Total Semester Hours		127

## 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 Beehly 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.

**Year 1**

Fall		S.H.
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
Semester Hours		17

**Spring**

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
Semester Hours		19

**Year 2**

Fall		
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
Semester Hours		19

**Spring**

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
Semester Hours		19

**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
Semester Hours		18

**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
Semester Hours		17

**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
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		137

## 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.
- 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:

**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.

**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.

#### Year 1

Fall		S.H.
ENGL 1550	Writing 1	3
MATH 1564	Foundations of Middle School Mathematics 1	4
PSYC 1560	General Psychology	3
GEOG 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
Semester Hours		17

#### Spring

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
Semester Hours		19

#### Year 2

Fall		
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
Semester Hours		17

#### Spring

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
Semester Hours		20

#### Year 3

Fall		
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
Semester Hours		18

#### Spring

MATH 4870	Mathematics Seminar for Middle School Teachers	2
TEMC 3707	Science/Technology/Society	3
GEOG 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
Semester Hours		18

#### Year 4

Fall		
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
Semester Hours		15

#### Spring

TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
Semester Hours		12
Total Semester Hours		136

## 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.

- 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.

# 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



## 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 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.

Year 1		
Fall		S.H.
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
Semester Hours		19
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		S.H.
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		S.H.
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		S.H.
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	
<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 Domain</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	
<b>Social Science GER</b>		
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>Science Concentration</b>		
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
<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 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
<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: 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 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.

Year 1		S.H.
<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
Semester Hours		16
<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
Semester Hours		16

**Year 2****Fall**

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
Semester Hours		18

**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
Semester Hours		17

**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
Semester Hours		18

**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
Semester Hours		18

**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
Semester Hours		15

**Spring**

TEMC 4802	Student Teaching: Middle Childhood	10
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TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
Semester Hours		12
Total Semester Hours		130

## 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), 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>						
Core Competencies			12			
ENGL 1550	Writing 1 (requires a B average)			PSYC 3709	Psychology of Education	3
ENGL 1551	Writing 2 (requires a B average)			SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
CMST 1545	Communication Foundations			EDFN 3708	Education and Society	3
Mathematics Requirement				TEMC 3702	Teaching & Learning in Middle Schools <sup>1,2</sup>	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.				Reading Course Requirements		
MATH 2623	Quantitative Reasoning			TERG 3701	Phonics in Reading Instruction	3
OR:				TERG 2610	Reading Application in Content Areas Middle Years	3
MATH 2652	Mathematics for Early Childhood Teachers 2			TERG 3702	Developmental Reading Instruction <sup>1</sup>	3
OR:				TERG 3703	Assessment and Instruction in Reading <sup>2</sup>	3
MATH 2665	Foundations of Middle School Mathematics 2 (Mathematics Concentration takes this one)			Preclinical Curriculum		
General Education Knowledge Domains				TEMC 4801	The Middle School Learning Community <sup>2</sup>	3
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.				TEMC 4804	Middle Level Instructional Design and Student Outcomes <sup>2</sup>	3
Arts and Humanities			6	TEMC 3703	Thematic Instruction and Assessment Methods in Social Studies <sup>2</sup>	3
Natural Sciences (2 courses, 1 lab)			7	TEMC 3705	The Teaching of Science in the Middle School <sup>2</sup>	3
Social Science			6	Student Teaching Curriculum		
PSYC 1560	General Psychology			TEMC 4802	Student Teaching: Middle Childhood <sup>2</sup>	10
Social Science GER				TEMC 4803	Student Teaching Seminar for Middle Childhood Education <sup>2</sup>	2
Social and Personal Awareness			6	Total Hours Required for the Degree: 140 s.h.		
General Education Elective			3	<sup>1</sup> Prerequisites for preclinical curriculum.		
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE			<sup>2</sup> Upper division course.		
Science Concentration				BCOE Notes:		
BIOL 1505	Biology and the Modern World (NS)	3		<b>Advisement:</b>		
CHEM 1500	Chemistry in Modern Living (NS)	3		<ul style="list-style-type: none"> <li>It is <b>highly recommended that all teacher candidates meet with an academic advisor every semester.</b></li> <li>Freshmen, athletes, and students on warning and probation are <b>required</b> to meet with an advisor before registration.</li> <li><b>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</b> 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>		
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory (NS)	4		<b>Important Notes:</b>		
GEOL 2605	Historical Geology	4		<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> </ul> </li> </ul> </li> </ul>		
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				

\_\_\_\_ 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.
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- 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.
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- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CCAST 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**

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- 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.

**Year 1**

Fall		S.H.
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
Semester Hours		19

**Spring**

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
Semester Hours		18

<b>Year 2</b>			TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
<b>Fall</b>					
GEOG 2640	Human Geography (counts as SS Elective)	3	Semester Hours		
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			
		Semester Hours	19		
<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			
		Semester Hours	19		
<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			
		Semester Hours	18		
<b>Spring</b>					
ECON 2631	Introductory Macroeconomics for Education Majors	3			
TEMC 3707	Science/Technology/Society	3			
HIST 3748	History of Ohio	3			
GEOL 2605	Historical Geology	4			
TEMC 3702	Teaching & Learning in Middle Schools	3			
TERG 3703	Assessment and Instruction in Reading	3			
		Semester Hours	19		
<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			
		Semester Hours	16		
<b>Spring</b>					
TEMC 4802	Student Teaching: Middle Childhood	10			
		Semester Hours	140		

## 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 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 is 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.

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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	Allied Health Anatomy and Physiology & 1545L		
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	
Total Semester Hours		123	
<sup>1</sup> Prerequisites for preclinical curriculum.			
<sup>2</sup> Upper division course.			
BCOE Notes:			
<b>Advisement:</b>			
<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>			
<b>Important Notes:</b>			
<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>			
(Attach a copy of your CORE scores to the application)			
<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>			
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.			
<ul style="list-style-type: none"> <li>• "B" average or better (B-B-B, A-B-C) across the following:</li> </ul>			

\_\_\_\_ 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.

**Year 1**

Fall		S.H.
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
Semester Hours		15

**Spring**

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
Semester Hours		16

**Year 2**

**Fall**

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
Semester Hours		17

**Spring**

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
Semester Hours		16
<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
Semester Hours		17
<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
Semester Hours		16
<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
Semester Hours		14
<b>Spring</b>		
SED 4846	Supervised Student Teaching: Physical Education (K-12)	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
Semester Hours		12
Total Semester Hours		123

<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>		
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
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	
<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	
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	
<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
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 \_\_\_ 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.

#### Year 1

Fall		S.H.
SPAN 2600	Intermediate Spanish	4
ENGL 1550	Writing 1 (GER requirement)	3

MATH 2623	Quantitative Reasoning (GER requirement)	3
Or:		
MATH 2652	Mathematics for Early Childhood Teachers 2	
Or:		
PHIL 2619	Introduction to Logic	
Or:		
STAT 2601	Introductory Statistics	
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE (GER Elective)	3
Social Science GER		3
Semester Hours		16
<b>Spring</b>		
SPAN 2605	Advanced Intermediate Spanish	3
ENGL 1551	Writing 2 (GER requirement)	3
CMST 1545	Communication Foundations (GER requirement)	3
PSYC 1560	General Psychology (Social Science GER)	3
Arts and Humanities GER		3
Semester Hours		15
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		15
<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
SPAN 37XX <sup>1</sup>		3
Semester Hours		16
<b>Year 4</b>		
<b>Fall</b>		
SPAN 4880	Spanish Conversation and Composition Capstone	3
FNLG 4801	Methods of Foreign Language Teaching	3
SPAN 37XX <sup>1</sup>		3

EDFN 3710	Educational Assessment	3
SPAN 37XX <sup>1</sup>		3
Semester Hours		15

**Spring**

SED 4827	Supervised Student Teaching: Language (K-12)	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
Semester Hours		12
Total Semester Hours		120

<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

**Notes:**

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 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.

**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 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	
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:		
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
Total Semester Hours		129

<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.

Year 1		S.H.
<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
Semester Hours		18
<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
Semester Hours		17
<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
Semester Hours		18
<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.		
Semester Hours		18
<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
Semester Hours		15
<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
Semester Hours		18
<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
Semester Hours		12
<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
Semester Hours		13
Total Semester Hours		129

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 50-hour field experience is required. Passage of the OAE 018 (subtest 1) and 019 (subtest 2) examinations are required.

EMCE 5801 Early Childhood Generalist Science

EMCE 5802 Early Childhood Generalist Math

EMCE 5803 Early Childhood Generalist Language Arts

EMCE 5804 Early Childhood Generalist the Arts, Health and Fitness

EMCE 5805 Early Childhood Generalist Social Studies

## 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. This can be added to any teaching license. This endorsement 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 (jprotnivnak@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.
The specific coursework required in the Intervention Specialist Mild/Moderate Disabilities is as follows:		
<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	
	OR ENGL 3705 Young Adult Literature	
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.

**Year 1**

Fall		S.H.
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
Semester Hours		17

**Spring**

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
Semester Hours		16

**Year 2**

Fall		
SPED 2630	Individuals with Exceptionalities in Society	3
HIST 2605 or HIST 2606	Turning Points in United States History 1 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
Semester Hours		15
<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
ENGL 3703 or ENGL 3704 or ENGL 3705	Literature for Young Children or Literature for Middle School Readers or Young Adult Literature	3
Semester Hours		18
<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 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
Semester Hours		16
<b>Spring</b>		
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
Semester Hours		13
<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
Semester Hours		14
<b>Spring</b>		
SPED 4849	Supervised Student Teaching: Mild Moderate/ Disabilities	10
SPED 4869	Student Teaching Seminar for Special Education	2
Semester Hours		12
Total Semester Hours		121

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 (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

Student Teaching		12
SPED 4839	Supervised Student Teaching: Moderate/Intensive Intervention Specialist	
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:

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- 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.

**Year 1**

Fall		S.H.
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
Semester Hours		17

**Spring**

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
Semester Hours		16

**Year 2**

**Fall**

SPED 2630	Individuals with Exceptionalities in Society	3
MUHL 2621	Music Literature and Appreciation	3
HIST 2605	Turning Points in United States History 1 or HIST 2606 or Turning Points in United States History 2	3
TERG 2610	Reading Application in Content Areas Middle Years	3
PSYC 3758	Lifespan Development	3
Semester Hours		15

**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
AH Elective		3
Semester Hours		18

**Year 3**

**Fall**

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
Semester Hours		16
<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
Semester Hours		13
<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
Semester Hours		14
<b>Spring</b>		
SPED 4869	Student Teaching Seminar for Special Education	2
SPED 4839	Supervised Student Teaching: Moderate/Intensive Intervention Specialist	10
Semester Hours		12
Total Semester Hours		121

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 Cliffe College of Creative Arts and Communication

*Phyllis M. Paul, Dean*

*Greg Moring, Associate Dean*

The Cliffe College of Creative Arts and Communication consists of the following departments:

- Department of Art (<http://artdept.yosu.edu>)
- Department of Communication (<http://cms.yosu.edu/college-creative-arts-and-communication/communication/department-communication>)
- Dana School of Music (<http://www.yosu.edu/academics/college-creative-arts-and-communication/dana-school-of-music>)
- Department of Theatre and Dance (<http://www.yosu.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 Theatre 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
- theatre
- musical theatre track
- 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, theatre, 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, theatre 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 Cliffe College of Creative Arts and Communication are welcomed and encouraged to participate in special opportunities in art, music, communication, or theatre 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 World Languages and Cultures 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.yzu.edu/academics/college-creative-arts-and-communication>).

## Department of Art

**ENVISION A CREATIVE FUTURE**  
**Expand your creative capabilities**  
**Engage with creative individuals**  
**Evolve as a creative artist**

*Discover your potential and prepare for your creative future at Youngstown State University.*

YSU's Department of Art in the Cliffe College of Creative Arts and Communication recognizes that each student is unique with individual talents, goals, and passions as artists and designers. Our programs are designed with a focus on you and your future. Building a strong foundation is key. As you progress through the program, faculty work with you personally to help you translate your goals into reality. This personalized college experience helps you develop your niche and position yourself for the countless opportunities after graduation in today's creative industries.

## Contact Information

To learn more about the degree programs, scholarships, exhibitions, faculty, and students, please visit [art.yzu.edu](http://art.yzu.edu) (<http://artdept.yzu.edu>) or contact the Department of Art directly at 330-941-3627. To schedule a personalized campus visit, contact the Cliffe College Coordinator of Admission and Recruitment at 330-941-3625.

Email: [Connect Form](http://art.yzu.edu/connect) (<http://art.yzu.edu/connect>)

### Joy Christiansen Erb, MFA Chairperson

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 Youngstown, OH 44555  
 P 330.941.3627  
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### Shannon Pope Administrative Assistant

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 Youngstown, OH 44555  
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## Learning Outcomes

- 1) Students will be able to demonstrate their proficiency of art vocabulary.
- 2) Students will be able to demonstrate technical expertise appropriate to their progression in the program relevant to their chosen artistic medium.

3) Students will be able to demonstrate a high level of content expression appropriate to their progression in the program relevant to their chosen artistic medium.

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## Mission Statement

The mission of 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, the community, and the region 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. The department is committed to addressing both traditional issues and innovations in its educational environment.

The department is committed to enhancing the intellectual and cultural climate of the University, community, and region by presenting public activities and producing graduates with firm cultural and intellectual grounding, developed creativity, and problem-solving abilities.

Within the department, there is a strong recognition 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.

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## Degree Information & Requirements

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

Studio art includes concentrations in 3-dimensional studies (sculpture/ceramic), digital media, graphic + interactive design, interdisciplinary studio arts, painting and printmaking, and photography.

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 (<https://nasad.arts-accredit.org>)).

In 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. At the completion of the foundation sequence, passing ART 1503 Foundation Portfolio Review (usually spring term of the freshman year) is required 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. After completing two years of study with a grade point average of 3.0, these students may apply for admission to the Art Education program. No minor is required.

To transfer into a Department of Art degree program, a minimum GPA of 2.5 is required. Studio art credit for transfer students is awarded based on a combination of portfolio work and prior college credit. Except for state mandated transfer courses, transfer credit is not awarded solely on a listing of courses on a transcript. Transfer students should make an appointment to show their portfolios. For more information regarding transferring into the Department of Art, visit Transfers (<http://art.yosu.edu/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.

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## Facilities

The Department of Art is housed in Bliss Hall and 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. Youngstown Design Works (<https://www.facebook.com/yodesignworks>) is in the Phelps Building across campus, and the McDonough Museum of Art (<https://ysu.edu/mcdonough-museum>) is directly adjacent to Bliss Hall on the YSU campus. The Beecher Center (<http://cac.yosu.edu/beecher>), a joint-use space for the University and the Butler Institute of American Art (<https://butlerart.com>), is located just across Wick Avenue from Bliss Hall.

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## Accreditation

In support of the broader goals of the Cliffe 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>).

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## 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 • 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 • Exhibit Preparator • 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 • Printmaker • Prop Fabricator • Public Artist • Renderer • Sculptor • Set Decorator • Set Designer • Storyboard Artist • Studio Artist • Stylist • Technical Illustrator • Textile Designer • Video Artist • Videographer • Web Designer • Wood Artist • Wood Worker

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## 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 (<https://butlerart.com>), 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 (<https://www.millcreekmetroparks.org>) 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 20 faculty members who teach more than 200 art majors studying drawing, painting, printmaking, photography, ceramics, sculpture, digital media, graphic design, interdisciplinary studio, art history, and art education.

#### Chair

**Joy Christiansen Erb**, M.F.A., Associate Professor, 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

## Majors

- Bachelor of Science in Education Visual Arts Pre-K to 12 (p. 221)
- Bachelor of Fine Arts
  - Studio Art 3-Dimensional Studies Emphasis (p. 211)
  - Studio Art Digital Media Emphasis (p. 209)
  - Studio Art Graphic + Interactive Design Emphasis (p. 213)
  - Studio Art Interdisciplinary Studio Arts Emphasis (p. 214)
  - Studio Art Painting / Printmaking Emphasis (p. 216)
  - Studio Art Photography Emphasis (p. 219)

## Minors

- Art History Minor for Studio Art Majors (p. 209)
- Art History Minor For Non-Art Majors (p. 209)
- 3 Dimensional Studies Minor For Non- Art Majors (p. 209)
- 3 Dimensional Studies Minor For Art Majors (p. 208)
- Digital Media Minor For Non-Art Majors (p. 223)
- Digital Media Minor For Studio Art Majors (p. 223)
- Graphic Design Minor For Non-Art Majors (p. 223)
- Graphic Design Minor For Studio Art Majors (p. 223)
- Interactive Design Minor For Studio Art Majors (p. 224)
- Interactive Design Minor For Non-Art Majors (p. 223)
- Interdisciplinary Art Minor For Studio Art Majors (p. 224)
- Interdisciplinary Art Minor for Non-Art Majors (p. 224)

- Painting Minor For Studio Art Majors (p. 224)
- Painting Minor For Non-Art Majors (p. 224)
- Photography Minor For Non-Art Majors (p. 225)
- Photography Minor for Studio Art Majors (<https://catalog.yzu.edu/undergraduate/colleges-programs/college-creative-arts-communication/department-art/photography-minor-art-majors>)
- Printmaking Minor For Studio Art Majors (p. 225)
- Printmaking Minor For Non-Art Majors (p. 225)

#### 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 2624 Printmaking for Non-Majors 3 s.h.**

A survey of basic printmaking processes; including relief, intaglio, and mono-printing techniques. Emphasis on technical, formal, and conceptual exploration related to each technique.

**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.

**Gen Ed:** Arts and Humanities.

**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.**

Exploration of contemporary drawing with a focus on creative and alternative extensions to traditional image making. Emphasis placed on the development of perceptual, conceptual, and interpretive solutions to drawing problems and the relationship of technique, scale, media, format and materials. Articulation of personal content, research and revision is stressed.

**Prereq.:** ART 1522.

**ART 3722 Interdisciplinary Art Practice 3 s.h.**

Investigation of experimental, collaborative and interdisciplinary art practice—extending outward to include a variety of creative fields; including technology. Projects challenge students to redefine traditional approaches to art making utilizing concepts, processes and performative actions inherent to drawing in a wide context of materiality, surface, space, site-specific, collaborative and ephemeral methodologies. May be repeated a total of two times for 6 semester hours.

**Prereq.:** Two of the following ART 2625, ART 2626, ART 2611, ART 2674, ART 2691, ART 2669.

**ART 3725 Intermediate Printmaking: Intaglio and Relief 3 s.h.**

Further exploration of intaglio, relief, lithography and screenprinting processes, including digital and photo-mechanical processes. Emphasis on refining technique, experimentation, and further development of concept through the study of historical and contemporary printmaking artists.

**Prereq.:** ART 2625 or ART 2626.

**ART 3727 Topics in Advanced Printmaking 3 s.h.**

Variable topics including silkscreen, intaglio, monoprinting, 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 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 3752 Intermediate Painting 3 s.h.**

An understanding of painting processes in relation to both historical and contemporary painting practices. Students will be introduced to a variety of materials, processes and techniques for a diverse investigation of painting practice with concentration on individual content, direction, style, and personal expression.

**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 3784 Art of China 3 s.h.**

The art of China from prehistory to the present day. Media including ceramics, stone carving, bronzes lacquer, wood, architecture, painting, and new media will be placed in cultural, religious, political and social contexts.

**Prereq.:** ART 1541 or ART 1542 or ASST 1550.

**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 3789 Arts of South and Southeast Asia 3 s.h.**

Arts of greater India and both maritime and mainland Southeast Asia from prehistoric to contemporary, including ceramics, stone carving, architecture, painting, and photography in their cultural, religious, political and social context.

**Prereq.:** ART 1541 or ART 1542 or ASST 1550.

**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 4800J Studio Problems Interdisciplinary 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:		9
ART 3712	Intermediate Sculpture	
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:		12
ART 3741	Topics in Medieval Art	
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	
Total Semester Hours		18

## Minor in Art History for Studio Art Majors

COURSE	TITLE	S.H.
Select six of the following:		
ART 3741	Topics in Medieval Art	
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	
Total Semester Hours		18

ART 4889	Seminar in Art History	
ART 5881	Twentieth Century Art to 1960	
ART 5882	Twentieth Century Art from 1960	
Total Semester Hours		18

## Bachelor of Fine Arts in Studio Arts Digital Media Track

### Digital Media Faculty

**D** (<http://art.yosu.edu/dr-samuel-adu-poku>) **ana Sperry** (<http://art.yosu.edu/dana-sperry>)

**Associate Professor**  
Phone: 330.941.3627  
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**Dr. R** (<http://art.yosu.edu/dr-lillian-lewis>) **obert Twomey** (<http://art.yosu.edu/dr-robert-twomey>)

**Assistant Professor**  
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### Digital Media

The Department of Art's Digital Media program teaches students to use the creative tools of tomorrow.

In Digital Media, students will explore the ways in which new technologies are engines of personal exploration and cultural production. They will experiment with new ways of expressing themselves through video, interactive media, and digital fabrication and will discover that technology is a tool for creative experimentation, an instrument for the artistic manipulation of data, and the creation of dynamic user experience and interaction. The skills students acquire in Digital Media will prepare them for careers in a variety of cultural industries.

Potential areas of exploration in YSU's Digital Media program include:

- Video
- Web-based Art
- 3D Printing and Digital Fabrication
- Mechatronics and Physical Computing
- Creative Coding

The department offers classrooms and work space in Bliss Hall, the Butler Institute of American Art, and the McDonough Museum. Our computer labs feature Mac workstations with the full Adobe Creative Cloud including Photoshop, After Effects, and Premiere, as well as Rhinoceros 3D, and open-source creative software like Processing and Arduino. Our fabrication labs feature digital tools such as 3D printers, CNC routers, and laser cutters.

### Contact Information for Department of Art

To learn more about the degree programs, scholarships, exhibitions, faculty, and students, visit [art.yosu.edu](http://artdept.yosu.edu) (<http://artdept.yosu.edu>) or contact the Department of Art directly at 330-941-3627. To schedule a personalized campus visit, contact the College Coordinator of Admission and Recruitment at 330-941-3625.

Email: [Connect Form](http://art.yosu.edu/connect) (<http://art.yosu.edu/connect>)

COURSE	TITLE	S.H.
General Education Requirement		12
ENGL 1550	Writing 1	

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
<b>Foundation Courses</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
<b>Breadth Courses</b>		
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
<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	
ART 37XX, Art History Elective		3
ART 37XX, Art History Elective		3
<b>Concentration Courses</b>		
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		
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
Total Semester Hours		126

<sup>1</sup> Must be taken a minimum of three times.

<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
Natural Science Course with Lab	4
Semester Hours	16

<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
CMST 1545	Communication Foundations	3
Successful completion of Fr. portfolio review		
Semester Hours		16

<b>Year 2</b>		
<b>Fall</b>		
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
Semester Hours		15

<b>Spring</b>		
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
Semester Hours		15

<b>Year 3</b>		
<b>Fall</b>		
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
Semester Hours		15

<b>Spring</b>		
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
Semester Hours		16

<b>Year 4</b>		
<b>Fall</b>		
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	

S.H.

General Education Course	3
Semester Hours	15
<b>Spring</b>	
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
Semester Hours	15
<b>Summer</b>	
ART 37/48xx Studio Art Elective	3
Semester Hours	3
Total Semester Hours	126

group, or experimental work. Well-equipped, YSU's Ceramics program offers an interdisciplinary approach to working within the medium.

Ceramics studio equipment includes separate and completely equipped studios for handbuilding, wheel throwing, mold making and slip casting. There are also research possibilities in utilizing innovative technologies such as 3D Digital printing.

The Ceramic studio also includes the following vented labs: fully stocked glaze lab, clay mixing lab, and three kiln rooms that include computer controlled electric kilns, gas, and atmospheric kilns with a pit firing area.

With access to first-rate facilities and the ability to customize their educational experience, students gain an all-encompassing knowledge and understanding of contemporary ceramic practices.

## Learning Outcomes

- 1.) Students will be able to demonstrate their proficiency of art vocabulary.
- 2.) Students will be able to demonstrate technical expertise appropriate to their progression in the program relevant to their chosen artistic medium.
- 3.) Students will be able to demonstrate a high level of content expression appropriate to their progression in the program relevant to their chosen artistic medium.

# Bachelor of Fine Arts in Studio Art 3-Dimensional Studies Track

## 3-D Studies (Ceramics and Sculpture) Faculty

**Missy McCormick** (<http://art.yzu.edu/missy-mccormick>)  
 Associate Professor  
 Ceramics  
 Office: Bliss B006  
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## Ceramics

Youngstown State University's ceramics concentration allows students to develop their skills and take advantage of the expanding career opportunities in the field.

Whether students are planning to build a career as a fine or craft artist, independent or production designer, or tile, mold, or model maker, YSU's ceramics program allows them to customize their education to suit their passion. Students are able to fashion a portion of their curriculum in the specific field of ceramics that interests them.

Along with a customizable curriculum, YSU's Department of Art offers one of the largest ceramic studios in the state. The faculty, curriculum, and facility support a wide variety of approaches to contemporary ceramic art, including functional, sculptural, and design-based methodologies. Students have the opportunity to work with a variety of formats, including techniques based on the object, time, installation, utility, and industrial applications.

Advanced students have access to a semi-private studio space and work in a creative environment with open studio hours seven days a week. Ceramics facilities feature over 6,000 square feet of studio space spanning two floors, with separate areas for wheel throwing, handbuilding, glaze mixing, clay mixing, plaster work, and documenting artwork. Various firing possibilities are available, with two internal kiln rooms and a gated and covered external kiln area. There is a Student Project Gallery where all students may exhibit solo,

## Sculpture

The sculpture program is an interdisciplinary studio program that emphasizes a broad foundation of technical, critical, and professional skills. The program enables students to grow as artists by focusing on the development of strong conceptual ideas and personal approaches linked with the informed use of media and technique.

Students are exposed to traditional materials and processes such as carving, clay modeling, welding fabrication, assemblage, mold making, and bronze casting as well as current technologies such as 3D digital production, rapid-prototyping, video, and new media. Students are further encouraged to explore content in installation, performance, time-based art, 3D computing, ecological- or science-based work, and other new genres.

The interdisciplinary sculpture curriculum places strong emphasis on understanding context — cultural, historical, political, and personal — and encourages experimentation, conceptual rigor, and interdisciplinary risk taking. The curriculum is further enriched by the Butler Institute of American Art and the McDonough Museum of Art, which are both on the campus of Youngstown State University, as well as Youngstown State University's proximity to Cleveland and Pittsburgh, affording students ready access to museums, galleries, performances, and other culturally rich opportunities.

Sculpture is a part of Launch Lab, which is a unique partnership between the Colleges of Creative Arts and Communication, Business Administration, and Science, Technology, Engineering and Mathematics at Youngstown State University. The unique collaborative nature of Launch Lab provides students innovative opportunities for the significant application of creative problem solving in a cross-disciplinary learning environment utilizing new and state-of-the-art technologies.

By offering a rich mix of conceptual, material, and process experiences, students gain a thorough knowledge and understanding of a full range of contemporary art practices and critical theory in sculpture.

## Contact Information for Department of Art

To learn more about the degree programs, scholarships, exhibitions, faculty, and students, visit [art.yzu.edu](http://art.yzu.edu) (<http://artdept.yzu.edu>) or contact the Department of Art directly at 330-941-3627. To schedule a campus visit, contact the CCAC Coordinator of Admissions and Recruitment at 330-941-3625.

Email: [Connect Form \(http://art.yzu.edu/connect\)](http://art.yzu.edu/connect)

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 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
<b>NOTE: ART 4834 must be repeated for a total of 9 s.h.</b>		
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
<b>Studio Art Electives</b>		
Select 9 s.h. of ART 37XX/48XX Studio Art Electives.		9
<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 2 ART 37/48XX Art History Electives.		6
Total Semester Hours		126
<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
Semester Hours		15
<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
Semester Hours		16
<b>Year 2</b>		
<b>Fall</b>		
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
<b>Spring</b>		
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
<b>Year 3</b>		
<b>Fall</b>		
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
<b>Spring</b>		
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
<b>Year 4</b>		
<b>Fall</b>		
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
<b>Spring</b>		
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
Semester Hours	3
<b>Total Semester Hours</b>	<b>126</b>

## Learning Outcomes

- 1.) Students will be able to demonstrate their proficiency of art vocabulary.
- 2.) Students will be able to demonstrate technical expertise appropriate to their progression in the program relevant to their chosen artistic medium.
- 3.) Students will be able to demonstrate a high level of content expression appropriate to their progression in the program relevant to their chosen artistic medium.

# Bachelor of Fine Arts in Studio Art Graphic + Interactive Design Track

## Graphic + Interactive Design Faculty

**Rich Helfrich** (<http://art.yzu.edu/rich-helfrich>)  
**Assistant Professor**  
 Office: Bliss 4075  
 Phone: 330.941.3775  
 E-mail: [rmhelfrich@ysu.edu](mailto:rmhelfrich@ysu.edu)

**Michelle Nelson** (<http://art.yzu.edu/michelle-nelson>)  
**Professor**  
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**RJ Thompson** (<http://art.yzu.edu/rj-thompson>)  
**Assistant Professor**  
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 E-mail: [rjthompson01@ysu.edu](mailto:rjthompson01@ysu.edu)

## Graphic + Interactive Design

The studio art major emphasis, Graphic + Interface Design, provides students with a foundation of critical and creative design processes and prepares them for the profession of graphic and interface design – including careers in identity systems, package design, motion and web design, and creative direction. Based primarily on computer technology, students will investigate new ways of solving complex visual problems and use both print and interactive designs as solutions.

Students take one year of Foundations courses that help them hone fine arts skills in the elements of composition and design. Once students have passed the Freshman Foundations Portfolio Review, they will learn the formal principles, processes, and vocabulary of print and interface design as well as graphic design history. They develop critical thinking skills and visual conceptualization not only through visual design projects but also through writing and speaking about design processes and critical theory. Students may supplement their coursework with community projects, design competitions, and design work in the university community or through an internship.

Students participate in a Junior Portfolio Review as well as Senior Project, which guide and prepare them for working in the profession or furthering their education in graduate school.

To stay current with industry standards in both print and web, the dedicated faculty of Graphic + Interface Design routinely update the curriculum and attend conferences and workshops to pass along inspiration of today's practices to YSU students. By remaining active in the field of design, our

faculty integrate real-world design issues into classroom curriculum and projects. Graphic + Interface Design faculty are actively involved in helping their students find internships in the surrounding Youngstown and Pittsburgh areas. In addition, students are encouraged to participate in the AIGA student chapter, which is a part of the national AIGA (<https://www.aiga.org>) design organization, to gain further community connections and involvement in the field of design.

The faculty take pride in the skills, passion, and accomplishments with which our students graduate, all of which prepare them for a seamless transition into both regional and national design firms and graduate schools.

## Contact Information for Department of Art

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Email: [Connect Form \(http://art.yzu.edu/connect\)](http://art.yzu.edu/connect)

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	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 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>		<b>18</b>
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		
Total Semester Hours		129
<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
Semester Hours		15
<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
Semester Hours		16
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		16
<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.		
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		6
Total Semester Hours		129

## Learning Outcomes

- 1.) Students will be able to demonstrate their proficiency of art vocabulary.
- 2.) Students will be able to demonstrate technical expertise appropriate to their progression in the program relevant to their chosen artistic medium.
- 3.) Students will be able to demonstrate a high level of content expression appropriate to their progression in the program relevant to their chosen artistic medium.

## Bachelor of Fine Arts in Studio Art Interdisciplinary Studio Arts Track

### Interdisciplinary Studio Art Faculty

**Claudia Berlinski** (<http://art.yzu.edu/claudia-berlinski>)

**Assistant Professor**

Office: Bliss 4083

Phone: 330.941.3626

E-mail: [caberlinski@yzu.edu](mailto:caberlinski@yzu.edu)

**Stephen Chalmers** (<http://art.yzu.edu/stephen-chalmers>)

**Associate Professor**

Office: Bliss 4079  
 Phone: 330.941.3776  
 E-mail: schalmers@ysu.edu

**Joy Christiansen Erb** (<http://art.yosu.edu/joy-christiansen-erb>)

**Associate Professor**  
 Office: Bliss 4001A  
 Phone: 330.941.3628  
 E-mail: jchristiansenerb@ysu.edu

**Dragana Crnjak** (<http://art.yosu.edu/dragana-crnjak>)

**Associate Professor**  
 Office: Bliss 0016  
 Phone: 330.941.1860  
 E-mail: dcrnjak@ysu.edu

**Joseph D'Uva** (<http://art.yosu.edu/joseph-duva>)

**Associate Professor**  
 Office: Bliss 4071  
 phone: 330.941.2540  
 e-mail: jduva@ysu.edu

**Missy McCormick** (<http://art.yosu.edu/missy-mccormick>)

**Associate Professor**  
 Office: Bliss B006  
 Phone: 330.941.3701  
 E-mail: mmccormick@ysu.edu

Chris McCullough (<http://art.yosu.edu/chris-mccullough>)

**Professor**  
 Office: Bliss 4077  
 Phone: 330.941.1862  
 E-mail: cmccullough@ysu.edu

**Dana Sperry** (<http://art.yosu.edu/dana-sperry>)

**Associate Professor**  
 Phone: 330.941.3627  
 E-mail: jdsperry@ysu.edu

**Robert Twomey** (<http://art.yosu.edu/dr-robert-twomey>)

**Assistant Professor**  
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 Phone: 330.941.1548  
 E-mail: rtwomey@ysu.edu

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## Interdisciplinary Studio Art

The Interdisciplinary Studio Art program at Youngstown State University was designed specifically for students with an interest in combining multiple disciplines.

Interdisciplinary is a central component of contemporary creative practice. Students enrolled in the program explore and combine a variety of media to investigate and examine relevant topics across studio areas. The program fosters innovative thinking and making for those interested in exploring alternative and experimental methodologies.

After completing the Foundation sequence, students interested in pursuing Interdisciplinary Studio Art take a full range of introductory studio art courses. Working closely with faculty mentors, students following this concentration have the flexibility to select the upper division coursework that corresponds with their unique vision. Students may elect to combine a minimum of seven upper level courses in digital media, painting, ceramics, printmaking, photography, or sculpture. This rigorous, multi-media program cultivates independent thinking and intellectual curiosity and provides the knowledge and skills necessary to adapt and respond in a contemporary creative environment.

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## Contact Information for Department of Art

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Email: Connect Form (<http://art.yosu.edu/connect>)

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
Total Semester Hours		126
<b>Year 1</b>		
<b>Fall</b>		<b>S.H.</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
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 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
Semester Hours		15

**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
Semester Hours		15

**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
Semester Hours		16

**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.

Semester Hours 16

**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
Semester Hours		15

**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
Semester Hours	15

**Summer**

General Education Course	3
Semester Hours	3
Total Semester Hours	126

<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

- 1.) Students will be able to demonstrate their proficiency of art vocabulary.
- 2.) Students will be able to demonstrate technical expertise appropriate to their progression in the program relevant to their chosen artistic medium.
- 3.) Students will be able to demonstrate a high level of content expression appropriate to their progression in the program relevant to their chosen artistic medium.

# Bachelor of Fine Arts in Studio Art Painting / Printmaking Track

## Painting/Printmaking Faculty

**Dragana Crnjak** (<http://art.yzu.edu/dragana-crnjak>)

**Associate Professor**

**Painting**

Office: Bliss 0016

Phone: 330.941.1860

E-mail: dcrnjak@ysu.edu

**Joseph D'Uva** (<http://art.yzu.edu/joseph-duva>)

**Associate Professor**

**Printmaking**

Office: Bliss 4071

phone: 330.941.2540

e-mail: jduva@ysu.edu

**Chris McCullough** (<http://art.yzu.edu/chris-mccullough>)

**Professor**

**Painting**

Office: Bliss 4077

Phone: 330.941.1862

E-mail: cmccullough@ysu.edu

## Painting

The Painting Program offers balanced instruction towards both technical and conceptual aspects of painting. Students are exposed to a wide range of ideas and processes in relation to both historical and contemporary art practices. Through dynamic in-classroom demonstrations, student-focused discussions, field trips, and regular lectures by visiting artists, students are immersed in the vibrant field of painting.

The Painting Program provides students with spacious, naturally-lit studio rooms, and individual studio spaces are available for advanced art students. The Painting Program is strongly committed to students' professional development and provides students with continuous opportunities to exhibit their artwork in one-person, group, and collaborative exhibitions, as well as in annual juried exhibitions at McDonough Museum of Art and the Butler Institute of American Art.

## Printmaking

The studio art major with an emphasis in Printmaking gives the student basic skills and knowledge in both traditional and contemporary print media. The Printmaking Area includes courses that focus on lithography, intaglio, screenprint, relief, monoprint/monotype, and photo/digital based printmaking applications. Students who participate in these courses learn how to create editioned prints and unique, one-of-a-kind printed works. In addition, many printmaking students chose to integrate printmaking processes into other media, such as Painting, Ceramics, Sculpture, Installation, and Graphic Design.

The Printmaking Area also invites students to participate in many events throughout the year, including print specific exhibitions, juried student exhibitions, printmaking fundraising events (which aid in class trips and study abroad opportunities), and collaborative printing in our Red Press Collaborative visiting artist program.

As with all BFA Studio Art majors, students must complete and pass the Freshman Foundation Portfolio Review before beginning the printmaking course sequence. The printmaking major offers a diverse range of media experiences and allows for a progression of technical and aesthetic development to best prepare him/her as a professional print artist, collaborative printer, and/or to continue onto graduate study.

Over the last few years, the Printmaking Facilities have undergone significant changes. The area has been updated with some of the safest, most current equipment/materials in the field, transforming the space into one of the most contemporary and versatile student printmaking studios in the region. To offer our students a safe environment in which to create printed works of art, the facility utilizes many non-toxic printmaking methods and chemistry. Facilities include a large printmaking studio with an outdoor balcony and plenty of natural light, an attached chemistry room dedicated to etching, and a technology lab/darkroom annex allowing us to generate photo-matrices within lithography, intaglio, and screenprint processes. The main studio includes three intaglio/relief presses, two lithography presses, large format screenprinting vacuum press, large format textile screenprinting press, a four color/two station T-shirt screenprinting press, six portable screenprinting units, lithography stone graining sink (forty count litho stone collection), paper prep/tear table, and a large paper soaking sink. The chemistry room includes a vertical etching tank, chemistry lab specific counters and sink, hotplate, acid storage cabinet, chemical storage cabinet, and a portable acid/gas/particulate matter ventilation unit. The technology lab/darkroom includes a large litho/etching plate photo-exposure unit, screenprinting exposure unit, screenprinting washout booth with commercial power washer, four Macintosh computers, scanner, tabloid sized laser printer, and a large format Epson archival ink jet printer.

## Contact Information for Department of Art

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Email: Connect Form (<http://art.yzu.edu/connect>)

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>	21
<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

### Year 1

	S.H.
<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>

### 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
<b>Semester Hours</b>	<b>16</b>

### Year 2

	S.H.
<b>Fall</b>	
ART 2625 Introduction to Printmaking: Intaglio and Relief (*both offered in SUMMER) or ART 2626 or Introduction to Printmaking: Lithography and Screenprinting	3
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>

### Spring

ART 2626 Introduction to Printmaking: Lithography and Screenprinting (*both offered in SUMMER) or ART 2625 or Introduction to Printmaking: Intaglio and Relief	3
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>

### Year 3

	S.H.
<b>Fall</b>	
ART 3725 Intermediate Printmaking: Intaglio and Relief or ART 3726 or Intermediate Printmaking: Lithography and Screenprinting	3
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>

### Spring

ART 3726 Intermediate Printmaking: Lithography and Screenprinting or ART 3725 or Intermediate Printmaking: Intaglio and Relief	3
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
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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>
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### Year 4

	S.H.
<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>

### Spring

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>

### Summer

	S.H.
<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	
ART 4824 Advanced Printmaking (3 s.h. also offered third year) or ART 4800 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

COURSE	TITLE	S.H.
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

### Year 1

	S.H.
<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>

### Spring

ART 1502 Fundamentals of 3D Design	3
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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 2650	Introduction to Painting	3
ART 2625 or ART 2625	Introduction to Printmaking: Intaglio and Relief <sup>1,2</sup> or Introduction to Printmaking: Intaglio and Relief	3
Art Breadth Course		3
ART 1542	Survey of Art History 2	3
General Education Course		3
Semester Hours		15

**Spring**

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
Semester Hours		15

**Year 3**

**Fall**

ART 3752	Intermediate Painting	3
ART 3721	Expressive Drawing	3
ART 3725 or ART 3726	Intermediate Printmaking: Intaglio and Relief <sup>1,2</sup> or Intermediate Printmaking: Lithography and Screenprinting	3
Art History 3700 or higher		3
General Education Course with Lab		4
Semester Hours		16

**Spring**

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
Semester Hours		16

**Year 4**

**Fall**

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
Semester Hours		15

**Spring**

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	
Semester Hours		15

**Summer**

Art 1 of 4 from Painting Electives	3	
Art Breadth Course	3	
Semester Hours		6

Total Semester Hours		129
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COURSE	TITLE	S.H.
Painting Electives		
ART 4852 or ART 4853	Advanced Painting 2 <sup>3</sup> Advanced Painting 3	3
ART 4824	Advanced Printmaking <sup>3</sup>	3
ART 37XX/48XX		
ART 4800	Studio Problems <sup>3</sup>	1-3

<sup>1</sup> ART 2625 and ART 2626 may vary semesters and ART 3725 and ART 3726 may vary semesters.

<sup>2</sup> ART 2625 is the prerequisite for ART 3725. ART 2626 is the prerequisite for ART 3726.

<sup>3</sup> May be repeated for up to 9 credit hours (varied topics)

## Learning Outcomes

1.) Students will be able to demonstrate their proficiency of art vocabulary.

2.) Students will be able to demonstrate technical expertise appropriate to their progression in the program relevant to their chosen artistic medium.

3.) Students will be able to demonstrate a high level of content expression appropriate to their progression in the program relevant to their chosen artistic medium.

# Bachelor of Fine Arts in Studio Art Photography Track

## Photography Faculty

**Stephen Chalmers** (<http://art.yzu.edu/stephen-chalmers>)

**Associate Professor**

Office: Bliss 4079

Phone: 330.941.3776

E-mail: schalmers@ysu.edu

**Joy Christiansen Erb** (<http://art.yzu.edu/joy-christiansen-erb>)

**Chairperson, Associate Professor**

Office: Bliss 4001A

Phone: 330.941.3628

E-mail: jchristiansenerb@ysu.edu

## Photography

Students in the Photography Program at YSU study photographic processes in both traditional and digital technologies within the context of a fine arts program. They move seamlessly between the darkroom and the digital facilities while exploring historic and contemporary issues within lens-based media. The Photography Program places equal emphasis on the science and craft of photography and on critical thinking and conceptual development. In all coursework, including introductory through advanced level classes, the photography faculty present a variety of concepts and applications related to lens-based media.

As with all BFA Studio Art majors, students begin the photographic course sequence only after they pass the Freshman Foundation Portfolio Review



(usually at the end of freshman year); after their Junior Portfolio Review in Photography (usually in the middle of junior year), students begin upper-level coursework. In addition to traditional courses, internships and community opportunities are available to photography majors. F(10) is a student-run photography organization that provides students with opportunities to travel to conferences and also to exhibit their own work.

## Contact Information for Department of Art

To learn more about our degree programs, scholarships, exhibitions, faculty, and students, visit [art.yzu.edu](http://art.yzu.edu) (<http://artdept.yzu.edu>) or contact the Department of Art directly at 330-941-3627. To schedule a personalized campus visit, contact the College Coordinator of Admissions and Recruitment at 330-941-3625.

Email: Connect Form (<http://art.yzu.edu/connect>)

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>		18
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	

### Art History Electives

Select two ART 37XX Art History Electives.		6
<b>Total Semester Hours</b>		<b>129</b>

### Year 1

Fall		S.H.
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
Semester Hours		15

### Spring

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
Semester Hours		16

### Year 2

Fall		
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
Semester Hours		16

### Spring

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
Semester Hours		15

### Year 3

Fall		
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	Twentieth Century Art to 1960	3
or ART 5882	or Twentieth Century Art from 1960	
ART 2661	Introduction to Graphic Design	3
ART Breadth Course		3
Semester Hours		16

### Spring

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.

Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
<b>Summer</b>		
ART Breadth Course		3
ART Studio Art Elective (37XX or higher)		3
Semester Hours		6
Total Semester Hours		129

- 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

- Students will be able to demonstrate their proficiency of art vocabulary.
- Students will be able to demonstrate technical expertise appropriate to their progression in the program relevant to their chosen artistic medium.
- Students will be able to demonstrate a high level of content expression appropriate to their progression in the program relevant to their chosen artistic medium.

# Bachelor of Science in Education in Art Education (PK to 12) Multi-Age License

## Art Education Faculty

**Dr. Samuel Adu-Poku** (<http://art.yosu.edu/dr-samuel-adu-poku>)  
**Professor**  
 Office: Bliss Hall 4089  
 Phone: 330.941.1866  
 E-mail: [sadupoku@ysu.edu](mailto:sadupoku@ysu.edu)

**Dr. Lillian Lewis** (<http://art.yosu.edu/dr-lillian-lewis>)  
**Assistant Professor**  
 Office: Bliss 4019

Phone: 330.941.1865 (<http://catalog.yosu.edu/undergraduate/colleges-programs/college-creative-arts-communication/departement-art/bsed-visual-arts-pre-k-12/tel:3309411865>)  
 E-mail: [llewis02@ysu.edu](mailto:llewis02@ysu.edu)

## Art Education

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 and their learning and nurturing their love of visual art.

At YSU, our program fosters professional teaching skills along with creative and intellectual growth. Students work with art education faculty who have a diverse set of research interests, ranging from the use of digital technology in the classroom and international studies to art curriculum and instruction and multicultural art education. Small class sizes and hands-on field teaching experiences effectively prepare students to enter the profession of teaching or a graduate degree program. Our graduates find rewarding and meaningful employment in public and private schools, community centers, museums, and galleries.

Students may elect art education as their major in the Department of Art as freshmen; however, they may only begin to enroll in art education and breath studio courses after successfully completing the Freshman Foundation Portfolio Review. As juniors, they will begin completing required courses, including those in professional education. The B.S.Ed. leads to teaching licensure in the State of Ohio.

## Contact Information for Department of Art

To learn more about the degree programs, scholarships, exhibitions, faculty, and students, visit [art.yosu.edu](http://art.yosu.edu) (<http://artdept.yosu.edu>) or contact the Department of Art directly at 330-941-3627. To schedule a personalized campus visit, contact the Cliffe College Coordinator of Admissions and Recruitment at 330-941-2346.

Email: [Connect Form](http://art.yosu.edu/connect) (<http://art.yosu.edu/connect>)

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
<b>-OR-</b>		
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.

<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		3
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.		
<b>Semester Hours</b>		<b>18</b>

<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		3
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		3
ART 3788	Theory of Art	3
ART Breadth Course		3
ART 5882	Twentieth Century Art from 1960	3
ART Breadth Course		3
<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		3
ART Breadth Course		3
ART Breadth Course		3
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.)		
Total Semester Hours			18

## Minor in Digital Media for Studio Art Majors

COURSE	TITLE	S.H.	
ART 2691	Introduction to Digital Media	3	
Select five (5) courses from the following:			15
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.)		
Total Semester Hours			18

## 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		
Total Semester Hours			21

## 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		
Total Semester Hours			18

## 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	
Total Semester Hours		21

## 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	
Total Semester Hours		18

## 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>		18
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)	
Total Semester Hours		18

## 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
Total Semester Hours		18

## 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)	
Total Semester Hours		21

## 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	
Total Semester Hours		18

## 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:		18
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.ysu.edu/college-creative-arts-and-communication/communication/departament-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. 226), Journalism (p. 226), and Telecommunication Studies (p. 227). 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 society, recognizes our outstanding students and provides opportunities for greater involvement and leadership within the field of communication. 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.iheart.com>), *The Vindicator*, etc.). They are active practitioners 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 Cliffe 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 a 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 an 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 an 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

## 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. To become a Pre-TCOM

major, entering freshmen may simply declare a Pre-TCOM major. Transfer students must have a GPA of 2.00 and be in "good academic standing."

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

**Adam C. Earnhardt**, Ph.D., Professor, Chair

### Professor

**Shelley Blundell**, Ph.D., Assistant Professor

**Amy Graban Crawford**, Ph.D., Professor

**Rebecca M. L. Curnalia**, Ph.D., Associate Professor

**Mary Beth Earnhardt**, Ph.D., Associate Professor

**Guy Harrison**, M.S., 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

### Lecturer

**David Davis**, M.S., Lecturer

**Paul Ditchey**, M.Ed., Lecturer

**Max V. Grubb**, Ph.D., Lecturer

**Jaietta Jackson**, M.A., Senior Lecturer

**Dorian Mermer**, M.A., Senior Lecturer

## Majors

- Bachelor of Arts in Communication Studies
  - Social Media Track (p. 237)
  - Interpersonal/Organizational Track (p. 232)
  - Media Track (p. 234)
  - Persuasion Track (p. 235)
- Bachelor of Arts in Journalism (p. 239)



- Bachelor of Arts in Journalism Broadcast and Digital Media Track (p. 241)
- **Bachelor of Arts in Telecommunication Studies**
  - Media Arts Track (p. 242)
  - Sports Broadcasting Track (p. 244)

## Minors

- Minor in Communicating in Diverse Organizations (p. 245)
- Minor in Communication Studies (p. 245)
- Minor in Interpersonal Communication (p. 246)
- Minor in Journalism Studies (p. 246)
- Minor in Magazine and Specialty Reporting (p. 246)
- Minor in Multimedia Reporting (p. 246)
- Minor in Social Media Campaigns (p. 246)
- Minor in Sports Information (p. 246)
- Minor in Telecommunication Studies (p. 246)

### 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 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 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 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
Total Semester Hours		120

### Year 1

Fall	S.H.	
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
Semester Hours		16

### Spring

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
Semester Hours		15

### Year 2

Fall	S.H.	
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
Semester Hours		16

### Spring

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
Semester Hours		16

### Year 3

Fall	S.H.	
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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		12
<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
Semester Hours		15
Total Semester Hours		120

## 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>	120
<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>	16
<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>	15
<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>	16
<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>	16
<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>	15
<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>	15
<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>	15
<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>	12
<b>Total Semester Hours</b>	120

## 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/Pubic 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
Total Semester Hours		120
<b>Year 1</b>		
<b>Fall</b>		<b>S.H.</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
Semester Hours		16
<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
Semester Hours		15

**Year 2**

**Fall**

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
Semester Hours		16

**Spring**

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
Semester Hours		16

**Year 3**

**Fall**

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
Semester Hours		15

**Spring**

CMST 3754	Argumentation	3
CMST 3756	Interviewing	3
Upper-division Minor course		3
GER XXXX	General Education Elective	3
Upper-division General Elective		3
Semester Hours		15

**Year 4**

**Fall**

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
Semester Hours		15

**Spring**

CMST 4899	Senior Project	3
CMST 5860	Persuasion and New Media	3
Upper-division Minor course		3
Upper-division General Elective		3
Semester Hours		12
Total Semester Hours		120

**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
Total Semester Hours		120
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		16
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		12
<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
Semester Hours		15
Total Semester Hours		120

## 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 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. Those on the journalism studies track 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.

## 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 3725	News Reporting 1	3
JOUR 2624	Imaging and Design of Media	3
JOUR 3726	American Journalism	3
JOUR 3721L	Journalism Workshop	3
JOUR 3723	Advanced Journalism Editing and Design	3
JOUR 4860	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
or CMST 3740	Social Media Communication	
<b>Support Required Elective Courses</b>		
Select two of the following or any JOUR upper division courses:		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
Total Semester Hours		120

- <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.

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
Semester Hours		16
<b>Spring</b>		
JOUR 3726	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
Semester Hours		16
<b>Year 2</b>		
<b>Fall</b>		
JOUR 3725	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
Semester Hours		16
<b>Spring</b>		
JOUR 3721L	Journalism Workshop	3
Minor course		3
AH XXXX	Arts & Humanities GER	3
NS XXXX	Natural Science GER	3
SS XXXX	Social Sciences GER	3
Semester Hours		15
<b>Year 3</b>		
<b>Fall</b>		
JOUR 3723	Advanced Journalism Editing and Design	3
CMST 3756	Interviewing (this is a required support course)	3
JOUR 4860	News Reporting 2	3
Upper-division Minor Course		3
SS XXXX	Social Sciences GER	3
Semester Hours		15

<b>Spring</b>		
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

<b>Year 4</b>		
<b>Fall</b>		
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

<b>Spring</b>		
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 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.

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
<b>Required Core Courses</b>			
JOUR 2624	Imaging and Design of Media	3	
JOUR 3721L	Journalism Workshop	3	
JOUR 3723	Advanced Journalism Editing and Design	3	
JOUR 3725	News Reporting 1	3	
JOUR 3726	American Journalism	3	

JOUR 4860	News Reporting 2	3	
JOUR 4824	Press Law and Ethics	3	
JOUR 4893	Journalism Senior Project	3	
<b>Telecommunication Core Courses</b>			
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

### Year 1

Fall	S.H.	
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
Semester Hours		15

### Spring

JOUR 3726	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
Semester Hours		17

### Year 2

Fall	S.H.	
JOUR 3725	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
Semester Hours		16

### Spring

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
Semester Hours		15

### Year 3

Fall	S.H.	
TCOM 3781	Audio Production	3
or TCOM 3782	or Video Production 1	
JOUR 4824	Press Law and Ethics	3
Second SPA Domain		3
Foreign Language 1550		4

Minor Class 2		3
Semester Hours		16
<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
Semester Hours		16
<b>Year 4</b>		
<b>Fall</b>		
JOUR 4860	News Reporting 2	3
TCOM 4890	Producing Broadcast News	3
Minor Class 5		3
Upper Division Elective		3
Upper Division Elective		3
Semester Hours		15
<b>Spring</b>		
JOUR 4893	Journalism Senior Project	3
TCOM 3789	Electronic Media Interviewing	3
or TCOM 3780	or Principles and Practices of Media Announcing	
Minor Class 6		3
Upper Division Elective		3
Semester Hours		12
Total Semester Hours		122

## 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
<b>Electives (students must complete 48 hours of upper division courses; 37xx and above)</b>		14
Total Semester Hours		120
<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
Semester Hours		16
<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
Semester Hours		15

**Year 2**

**Fall**

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
Semester Hours		16

**Spring**

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
Semester Hours		16

**Year 3**

**Fall**

TCOM XXXX Upper-division Elective		3
Minor course		3
SPA XXXX GER Social & Personal Awareness		3
SS XXXX GER Social Sciences		3
Semester Hours		12

**Spring**

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
Semester Hours		16

**Year 4**

**Fall**

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
Semester Hours		15

**Spring**

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
Semester Hours		14
Total Semester Hours		120

**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		
ENGL 1550	Writing 1	12
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement (e.g., MATH 2623, STAT 2625)		
Arts and Humanities		
Natural Sciences		
Social Science		
Social and Personal Awareness		
General Education Elective or First-Year Experience Course (e.g., CCAC 1500)		
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

Total Semester Hours	120
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**Year 1**

Fall	S.H.
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
Semester Hours	16

**Spring**

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
Semester Hours	16

**Year 2**

Fall	S.H.
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
Semester Hours	16

**Spring**

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
Semester Hours	16

**Year 3**

Fall	S.H.
TCOM 3794 Cross-platform Sports Broadcasting	3
Minor course	3
SPA XXXX GER Social & Personal Awareness	3
SS XXXX GER Social Sciences	3
Semester Hours	12

**Spring**

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
Semester Hours	15

**Year 4**

Fall	S.H.
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
Semester Hours	15

**Spring**

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
Semester Hours	14
Total Semester Hours	120

**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
Total Semester Hours	18

## 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
Total Semester Hours		18

## Minor in Journalism Studies

COURSE	TITLE	S.H.
First take these courses (6 s.h.):		
JOUR 2622	News Reporting 1	3
JOUR 2624	Imaging and Design of Media	3
Select one of the following courses (3 s.h.):		
JOUR 2603	Journalism Ethics and Social Responsibilities	3
JOUR 2605	Journalism as Literature	3
JOUR 2626	American Journalism	3
Select three of the following courses (9 s.h.):		
JOUR 3716	Introduction to Magazine Journalism	3
JOUR 3717	Editorial and Opinion Writing	3
JOUR 3721L	Journalism Workshop	3
JOUR 3722L	Radio News Workshop	3
JOUR 3723	Advanced Journalism Editing and Design	3
JOUR 3758	Projects in Working Class Reporting	3
JOUR 3759	Sports Journalism	3
JOUR 3760	News Reporting 2	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 4824	Press Law and Ethics	3
JOUR 4825	Selected Topics in Journalism	3
JOUR 4894	Journalism Internship	3
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.):		
JOUR 3723	Advanced Journalism Editing and Design	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 4824	Press Law and Ethics	3
JOUR 4825	Selected Topics in Journalism	3
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.):		
JOUR 3722L	Radio News Workshop	3
JOUR 3759	Sports Journalism	3
JOUR 3761	New Media Journalism	3
JOUR 3762	Political Reporting	3
JOUR 4823	In-Depth Reporting	3
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:		
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
Total Semester Hours		18

## Minor in Sports Information

COURSE	TITLE	S.H.
TCOM 1510	Sports Field Production 1	1
CMST 2600	Communication Theory	3
or CMST 2630	Social Media Literacy	3
CMST 3717	Intro to Media Relations Campaigns	3
CMST 3740	Social Media Communication	3
or CMST 3757	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
Total Semester Hours		22

## 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	
Total Semester Hours		20

## Dana School of Music

Dr. Randall Goldberg, Director

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(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>)

Welcome to the Dana School of Music! Founded 150 years ago, Dana is one of the oldest institutions of its kind in the United States. Our talented and vibrant faculty and students are involved with more than 100 events annually, including performances in historic regional halls (including the DeYor Performing Arts Center (<http://www.youngstownsymphony.com>) and Stambaugh Auditorium (<http://www.stambaughauditorium.com>)), distinguished lecturers, guest artists, and research pursuits. Our many illustrious alums may be found performing in orchestras, opera companies, prestigious military groups, and other touring ensembles; enshrined as Hall of Fame Songwriters and Grammy Award winners; and teaching in conservatories, universities, and primary and secondary schools throughout the US. More than 50 faculty and staff maintain a tradition of conservatory-style music training and musical excellence in an urban research university setting.

We are accredited by the National Association of Schools of Music and offer a comprehensive listing of undergraduate Bachelor of Music degree programs as well as Bachelor of Arts options that provide additional breadth of study. Graduate students may earn a Master of Music degree in performance, music education, jazz, history and literature, and theory and composition. This section of the YSU *Bulletin*, along with the accompanying curriculum pages, provides basic information about Dana's facilities, course offerings, and requirements for entrance and graduation. To learn more about our degree programs, faculty, students, facilities, entrance requirements, and scholarships, please visit our website (<https://ysu.edu/academics/college-creative-arts-and-communication/dana-school-of-music>) or contact the Dana School of Music directly at 330-941-3636. To schedule a personalized campus visit, contact the Cliffe College Coordinator of Admission and Recruitment at 330-941-3625. We would love to show you our school, hear about your interests, and become an important part of your future. We will look forward to seeing you soon!

Best wishes,  
Randall Goldberg

## 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, education, composition, pedagogy, theory, history, technology, research, and the music industry. The Dana School of Music leads in the pursuit of musical excellence and 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, regionally, nationally, and internationally through performances, recordings, research, teaching, 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

## Learning Outcomes

General Outcomes

- 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.

Additional Outcomes for Specific Programs

- BM – Composition: Students will compose music in a variety of genres.
- BM – Jazz Studies: Students will perform, improvise, compose, and arrange jazz music.
- BM – Recording: Students will record, edit, and produce music.
- BA – Music History/Music Theory: Students will complete a research project, inclusive of a final document, on a music-historical or music-theoretical subject.

## 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

Dana School of Music requirements for entrance and graduation are in accordance with the published regulations of the National Association of Schools of Music.

## Programs

The curriculum may be divided into seven components:

- composition
- music education
- music theory
- music history
- performance

- music recording
- liberal arts

## Bachelor of Music

The Bachelor of Music degree may be earned in the following majors:

- composition
- jazz
- music education
- music recording emphasis
- percussion
- piano
- organ
- standard brass, string, or wind instruments
- voice

### Bachelor of Arts

The Bachelor of Arts degree may be earned in the following majors:

- music history
- music theory
- performance

The BA degrees allow for work in minor areas. For instance, the BA in Performance allows for more extensive coursework in nonprofit leadership, entrepreneurship, and video production.

## Bachelor of Music in 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. Through excellent collaboration between the University and area school districts and teachers, music education students have a variety of opportunities for observation and student teaching.

For further information, please see the Cliffe College of Creative Arts and Communication advisement page (<http://www.yzu.edu/academics/college-creative-arts-and-communication/ccac-advisement>).

## Facilities

The Dana School is one of four departmental units in the Cliffe College of Creative Arts and Communication. Housed in Bliss Hall, the School includes practice rooms, faculty studios, classrooms, rehearsal facilities, and the Bliss Recital Hall, which has a seating capacity of 237. Our faculty and students also perform in several regional halls, including Stambaugh Auditorium (<http://www.stambaughauditorium.com>) and the DeYor Performing Arts Center (<http://www.youngstownsymphony.com/special-events>).

## Equipment

Equipment includes

- 92 Steinway pianos
- 30 MIDI pianos
- harpsichord 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. Although there is no charge for use of these instruments,

failure to comply with check-in deadlines will result in a \$5.00-a-day fine or replacement for each instrument.

## MIDI Classroom

The Dana School of Music provides students with the opportunity to utilize state-of-the-art technology; music computer software and hardware includes 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 features 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 that 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 Complete 10 software package. We feature Shure Large Diaphragm Condenser mics, Audio Technica SDC mics, Shure Beta 58s and 57s; our mic locker also includes a matched pair of Cascade Fathead II ribbon microphones. We use Genelec 1031 monitoring system with 7050b Sub.

## Libraries

The School's extensive libraries of band, choral, and orchestral music represent musical periods from the Middle Ages to the present. Maag Library (<http://maag.yzu.edu>) contains books, an extensive collection of printed music, recordings, research journals, and additional technology.

## 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 information about additional scholarships, please visit the YSU Scholarship Search ([http://cfweb.cc.yzu.edu/finaid/scholar/est\\_scholar.cfm](http://cfweb.cc.yzu.edu/finaid/scholar/est_scholar.cfm)) page.

## Musical Activities, Ensembles

Each year, Dana School of Music faculty and students perform over 100 concerts in the region, across the United States, and internationally. Recent student performances have included Wind Ensemble concerts in Carnegie Hall and at the Ohio Music Education Association Annual Professional Conference; Stroud All-Ohio Classical Guitar Competition; Jazz Ensembles at BLU Jazz; Percussion Ensemble performances at the Ohio Music Education Association Annual Professional Conference; and Dana Chorale concerts in South Korea. Faculty concerts have featured Dr. Kivie Cahn-Lipman with ACRONYM (<http://www.acronymensemble.com/home>); Dr. Kent Englehardt with the East Central Jazz Educators All Star Big Band (<https://www.facebook.com/ECJEAAllStarBigBand>); Drs. Francois Fowler and Kathryn Umble with Duo Allant (<http://www.duoallant.com/home.html>); Dr. Misook Yun in Hungary (<http://www.summermusicstudyinhungary.com/copy-of-faculty>); and Dr. Cicilia Yudha with the Duke University Symphony Orchestra (<https://www.ciciliayudha.com/2017>).

The School has numerous performing ensembles:

- Barbershop Chorus
- Brass, Percussion, String, and Woodwind Ensembles
- Chamber Music
- Chamber Orchestra
- Composer Ensemble
- Concert Band
- Dana Chorale
- Dana Symphony Orchestra
- Early Music Ensemble



- Gospel Choir
- Jazz Combos
- Jazz Ensemble
- Marching Band
- Opera Workshop
- Wind Ensemble
- University Chorus

## Student Activities

Music students may participate in all Youngstown State University student activities. Of special interest to music students are the student chapters of:

- Dana Guitar Association
- Dana Piano Guild
- Dana Research Society
- Dana Vocal Society
- New Music Society
- Ohio Collegiate Music Educators Association
- Phi Mu Alpha
- Sigma Alpha Iota
- Youngstown Jazz Collective
- Youngstown Percussion Collective

## Fees

See the Fees and Expenses (p. 20) section of the Undergraduate Catalog.

## Application and Admission Examinations

For admission to the Dana School of Music, prospective students must first be admitted to Youngstown State University. For information, please visit the YSU Admissions (<https://ysu.edu/admissions/apply-to-ysu>) webpage or call our Admissions Office toll free (877) 468-6978 (877-GO-TO-YSU) or local (330) 941-2000.

Applicants are required to pass entrance auditions in their performance area and to take placement examinations in music theory and piano. Auditions (<http://www.ysu.edu/academics/college-creative-arts-and-communication/dana-school-of-music/admission>) and examinations are on announced dates, typically during the spring of prospective students' senior year in high school.

## 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 (<https://ysu.edu/admissions/apply-to-ysu/high-school-checklist>) of this Catalog.

## Musical Proficiency

Before entering YSU and the Dana School, it is expected that prospective students will be proficient in one or more areas of applied music (i.e., performance, music recording, composition), as certain standards in technique and repertory must be met. Qualifications are determined by the placement tests mentioned above. Students who do not demonstrate the proficiency required to enroll in major-level lessons must enroll in the relevant minor-level lessons until they are ready to begin major-level lessons.

The Dana School of Music theory placement examination is used to determine theory proficiency. Those scoring less than the 80th percentile will take MUTC 1531N Music Theory 1 Intensive, while those scoring above the 80th percentile will enroll in 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 on 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 in an audition for the appropriate faculty.

## Admission from Other Institutions

The general policy is stated on the YSU Admissions Transfer Students website (<https://ysu.edu/admissions/apply-to-ysu/transfer-students>). Advanced standing in musical performance and in music theory is granted tentatively but must be validated by an audition and appropriate examinations (e.g., theory).

## Requirements for the Degree Bachelor of Music

It is the student's responsibility to insure that all graduation requirements for the degree sought are satisfied. If students average 16-18 hours per semester, these degrees may be earned in eight semesters. 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. All deficiencies must be satisfied prior to completing 60 semester hours at YSU.
2. Musical. A student lacking suitable proficiency in applied studies must develop it before undertaking the required college-level music courses.

## University Requirements

Non-music courses and other requirements to be completed are listed in the Curriculum Sheet (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-creative-arts-communication/school-music/#programsofstudytext>) of each degree program. An overview of YSU's General Education program and lists of courses by domain may be found here (<https://catalog.ysu.edu/undergraduate/general-information/academic-policies-procedures/general-education-requirements/#text>).

## Degree Requirements

All music majors must attend **36 Convocations** and **30 Dana School of Music concerts or recitals**. During the semester, Convocation meets every Friday (11:00-11:50) in Bliss Recital Hall. Attendance at 36 convocations is recommended in the first two years and required for degree completion. **Attendance at 30 recitals is mandatory in the first two years.** Students are asked to save printed programs from any recitals or concerts they attend as evidence of their presence.

## 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.

Although 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 (<http://www.ysu.edu/academics/college-creative-arts-and-communication/dana-school-of-music/admission>). Students who do not qualify for major-level lessons (e.g., PIAN 1501, FLUT 1501) may take the relevant minor-level lessons (e.g., PIAN 1500A, FLUT 1500A) until the deficiency is corrected.

After an examination given by members of the faculty, advanced standing in performance may be granted tentatively (e.g., for transfer students). The final classification is made at the end of the first semester of resident study.

Enrollment in private lessons is 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 for applied lessons

Assignment of students to teachers for applied music lessons is made by the area coordinator. Requests for change of teacher should be addressed to the coordinator in writing. To the extent possible, a student's choice of applied teacher will be taken into consideration but final assignment resides with the Director of the School of Music.

### Lessons

Students registered for 4 s.h. courses receive 50-minutes of 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-minutes of individual instruction and one 50-minute seminar weekly; they are required to practice two hours daily. Students registered for minor-level lessons receive individual instruction for 30 minutes each week and are required to practice one hour daily.

If a student misses more than three lessons in any semester, no credit will be given in applied lessons. Lessons missed due to legal holidays or school closings will not be rescheduled. In the case of prolonged student illness, the lessons may be rescheduled at the discretion of the applied teacher.

### Recitals

Recognizing that performing for an audience plays a vital role in musical and artistic growth, the Dana School offers its students many opportunities to perform 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 and student and faculty performances. **Attendance at 36 convocations is recommended in the first two years and required for degree completion.**

### 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 students as well as undergraduate students, at the sophomore level or higher, who are pursuing a music degree in the Dana School of Music.

### Degree and Non-degree Recitals

In partial fulfillment of graduation requirements, each candidate for the Bachelor of Music degree must present a senior recital. **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 more information, students should talk with their studio faculty. Student recitals should include a varied and balanced repertory, preparation of a printed program and program notes, and consideration of performance aspects such as attire, stage deportment, and marketing to an audience. *No later than 21 days prior to the projected recital date*, a recital hearing will be held. During that time, a student who plans to present a degree recital must be prepared to perform the recital program for faculty approval.

### Examinations

During examination week of each term, performance faculty members convene to determine if students may proceed to the next higher proficiency level of applied study. 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 who have earned a grade of C or lower, or with a grade of PR, may be retained in the same proficiency level. 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 withdraw completely from the course sequence.

To meet certain needs, each applied area (e.g., keyboard, brass, strings) may vary the above requirements. For details, consult with the appropriate area coordinator.

For more information, visit the Dana School of Music (<http://www.yzu.edu/academics/college-creative-arts-and-communication/dana-school-of-music>).

## 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 rehearse for one to 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:

- Dana Opera Ensemble 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 1-3 s.h.
- Woodwind and brass ensembles may include quartets, quintets, and various other combinations of instruments. 1 s.h. each.

For additional information, visit the **Dana School of Music** (<http://www.yzu.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

**Kent J. Engelhardt**, Ph.D., Professor

**Francois P. Fowler**, D.M., Professor

**Stephen L. Gage**, Ed.D., Professor

**Daniel Keown**, Ph.D., Assistant Professor

**Brian D. Kiser**, D.M.A., Professor

**Joseph Kromholz**, M.M., Assistant Professor

**Christopher Krummel**, D.M.A., Professor

**Hae-Jong Lee**, D.M.A., Associate Professor

**J. Paul Louth**, Ph.D., Associate Professor

**Andrew Mitchell**, D.M.A., Assistant 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

#### Lecturer

**Maria Fenty Denison**, D.M.A., Lecturer

**Sean Yancer**, B.M.E., Lecturer

## Majors

- Bachelor of Arts in Music, Applied Music Emphasis (p. 259)
- Bachelor of Arts in Music, Music History Emphasis (p. 260)
- Bachelor of Arts in Music, Music Theory Emphasis (p. 261)
- Bachelor of Arts in Music, Nonprofit Leadership Emphasis (p. 263)
- Bachelor of Music in Composition (p. 258)
- Bachelor of Music in Education, Instrumental Emphasis (p. 265)
- Bachelor of Music in Education, Keyboard Emphasis (p. 268)
- Bachelor of Music in Education, Voice Emphasis (p. 269)
- Bachelor of Music in Performance, Instrumental Emphasis (p. 272)
- Bachelor of Music in Performance, Jazz Emphasis (p. 273)
- Bachelor of Music in Performance, Organ Emphasis (p. 275)
- Bachelor of Music in Performance, Piano Emphasis (p. 276)
- Bachelor of Music in Performance, Voice Emphasis (p. 277)
- Bachelor of Music with an Emphasis in Music Recording (p. 271)

## Minors

- Music Minor (p. 278)

#### *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 0031 Chamber Music 1 s.h.**  
Mixed chamber music groups may be initiated by students and, pending final approval, run under this course code. Groups will be regularly coached by a faculty member and will also rehearse independently. Each member of the group must be prepared for rehearsals and coachings, through individual practice of his or her part and through score study. This course may fulfill in part the chamber ensemble requirement for music majors. "Mixed chamber" will be defined as any small, non-conducted group beyond those specific groups already listed in the undergraduate course catalogue. Such groups will typically be comprised of representatives of different instrument families (brass quartet or woodwind quintet, string trios, etc.), and occasionally comprised of different instruments within the same family, such as saxophone quartet. The course will be optional for vocal students. Vocal students taking the course must work collaboratively with piano students and/or other instrumental or mixed voice students. May be repeated for credit. Corequisite major-applied lessons.  
**Prereq.:** permission of the School of Music Chair/Chamber Music Coordinator.

**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 0044 Barbershop Singers 1 s.h.**  
An a cappella vocal chamber ensemble designed for music majors, minors and non-music students. Students are placed within the ensemble after an informal hearing with the conductor. Each singer must be devoted to producing his/her highest quality of performance through individual study, quartet rehearsals and group rehearsals of the music being prepared. Study, rehearsals (tutti, individual, and quartet), memorization and performances in public comprise the course of study.

**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 Theatre, 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.

**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 or MUAC 3781	Class Piano 3 Jazz Class Piano 1	1
MUAC 2682 or MUAC 3782	Class Piano 4 Jazz Class Piano 2	1
Total Semester Hours		123

Passed TPE and Audition

**Year 1**

Fall	S.H.	
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
Semester Hours		16

**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
Semester Hours		15

**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
Semester Hours		15

**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
Semester Hours		19

**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
Semester Hours		14
<b>Spring</b>		
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
Semester Hours		17
<b>Year 4</b>		
<b>Fall</b>		
MCMP 4803	Composition	3
MUEN 00XX		1
VOIC 5800A	Voice (or Instrument 5800A)	1
MUTC Electives		6
General Education Electives		3
Semester Hours		14
<b>Spring</b>		
MCMP 4804	Composition	3
MUTC Electives		3
MUHL Elective		3
Foreign Language		4
Semester Hours		13
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 Performance, Vocal 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	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>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
Total Semester Hours		125
Passed TPE and Audition		
<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
Semester Hours		14

**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
Semester Hours		15

**Year 2****Fall**

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
Semester Hours		17

**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 2604)	2
MUHL 3772	Music History and Literature 2	3
General Education Electives		3
Minor Course		3
Semester Hours		17

**Year 3****Fall**

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
Semester Hours		15

**Spring**

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
Semester Hours		15

**Year 4****Fall**

VOIC 4801	Voice (or Instrument 4801)	2
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MUEN 00XX		1
Music Electives		6
Minor Course		3
Foreign Language		4
Semester Hours		16

**Spring**

Music Electives		3
Minor Course		3
Foreign Language		4
General Education Electives		6
Semester Hours		16
Total Semester Hours		125

## 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	Class Piano 3 or MUAC 378 Jazz Class Piano 1	
MUAC 2682	Class Piano 4 or MUAC 378 Jazz Class Piano 2	

**III. Music History Emphasis**

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

**Year 1**

<b>Fall</b>		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	S.H. 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>

**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
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>

**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
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>

**Spring**

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>

**Year 3**

<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>

**Spring**

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>

**Year 4**

<b>Fall</b>		
Music Electives		6
Minor Course		3
General Education Elective		6
<b>Semester Hours</b>		<b>15</b>

**Spring**

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>

## 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 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 378 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
Minor Required		18
<b>Total Semester Hours</b>		<b>125</b>
Passed TPE and Audition		
<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
Semester Hours		14
<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
Semester Hours		15

<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 Elective		3
Minor Course		3
Semester Hours		17
<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 2602)	2
MUHL 3772	Music History and Literature 2	3
General Education Elective		3
Minor Course		3
Semester Hours		17
<b>Year 3</b>		
<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
Semester Hours		16
<b>Spring</b>		
MUHL 3774	Music History and Literature 4	3
Music Elective		3
MUCO 3715	Choral and Instrumental Conducting	3
Minor Course		3
Foreign Language		4
Semester Hours		16
<b>Year 4</b>		
<b>Fall</b>		
MUHL/MUTC Upper Division Electives		6
Minor Course		3
General Education Elective		6
Semester Hours		15
<b>Spring</b>		
MUHL/MUTC Upper Division Electives		6
Minor Course		3
General Education Elective		6
Semester Hours		15
Total Semester Hours		125

## 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
<b>Keyboard Musicianship</b>		
Select one course sequence for non-keyboard or keyboard majors:		
<b>Non-keyboard Majors</b>		
MUAC 1581	Class Piano 1	
MUAC 1582	Class Piano 2	
MUAC 2681	Class Piano 3	
or MUAC 378: Jazz Class Piano 1		
MUAC 2682	Class Piano 4	
or MUAC 378: 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	
<b>III. Applied Music Emphasis</b>		

Applied Instrument/Voice 1501-4801		14
Large Ensemble		5
Chamber Ensemble		2
Senior Recital		N/C
<b>Electives</b>		
BUS 3740	Nonprofit Community Service 1	1
BUS 4840	Nonprofit Leadership Internship	3
BUS 4841	Nonprofit Leadership Seminar	1
PHIL 2625	Introduction to Professional Ethics	3
or PHIL 2628	Business Ethics	
MKTG 3702	Business Professionalism	1
<b>Minor</b>		
<b>Suggested courses</b>		
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
<b>Total Semester Hours</b>		<b>125</b>
<b>Year 1</b>		
<b>Fall</b>		<b>S.H.</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
<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
<b>Natural Science+ Lab</b>		<b>4</b>
ENGL 1551	Writing 2	3
<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
VOIC 2601	Voice ( (or Instrument 2601))	2
MUHL 3771	Music History and Literature 1	3
<b>General Education Electives</b>		<b>3</b>
MATH 2623	Quantitative Reasoning	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	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
<b>Year 3</b>		
<b>Fall</b>		
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
<b>Spring</b>		
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
<b>Year 4</b>		
<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
Semester Hours		16
<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
Semester Hours		16
Total Semester Hours		125

# 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 1550		
Foreign Language 2600		
<b>II. Core Music Requirements</b>		
<b>Music Theory: 19 hours</b>		19
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>		12
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>		4
MUAC 1581	Class Piano 1	
MUAC 1582	Class Piano 2	
MUAC 2681	Class Piano 3	
or MUAC 378 Jazz Class Piano 1		
MUAC 2682	Class Piano 4	
or MUAC 378 Jazz Class Piano 2		
<b>Conducting: 3 hours</b>		3
MUCO 3715	Choral and Instrumental Conducting	
<b>Applied Major: 14 hours</b>		14
1501		
1502		
2601		
2602		
3701		
3702		
4801		
<b>Large Ensembles: 5 hours of MUEN</b>		5
<b>Chamber Ensembles: 2 hours of MUEN</b>		2
<b>Dana School of Music Requirements:</b>		
Convocation attendance requirement		
Recital attendance requirement		
Senior Recital (connected to Applied Major 4801)		

Minor: 18 hours (6 hours upper division) 18  
 Minimum Total Semester Hours for the Degree: 125

# 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
<b>III. Instrumental Emphasis</b>		
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
<b>IV. College of Education Licensure Requirements</b>		
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

**Year 1**

Fall	S.H.
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
Semester Hours 17	

**Spring**

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	
Semester Hours 18	

**Year 2**

Fall	S.H.
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
Semester Hours 18	

**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
Semester Hours		15
<b>Year 3</b>		
<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!		
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 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
Semester Hours		20
<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
EDFN 3708	Education and Society	3
MUAC 3759	Voice Class	1
MUEN 00XX	Chamber Ensemble	1
MUEN XXXX		1
Semester Hours		15
<b>Spring</b>		
SED 4842A	Student Teaching Seminar for Secondary Education	2
SED 4844	Supervised Student Teaching: Music (K-12)	10
Semester Hours		12
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
<b>Music History and Literature: 12 hours</b>		
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	
<b>Keyboard Musicianship: 4 hours</b>		
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
<b>Conducting: 3 hours</b>		
MUCO 3715	Choral and Instrumental Conducting	3
<b>Applied Major: 14 hours</b>		
Instrument 1501		2
Instrument 1502		2
Instrument 2601		2
Instrument 2602		2
Instrument 3701		2
Instrument 3702		2
Instrument 4801		2
<b>Large Ensembles: 5 hours (1 hour must include a vocal ensemble)</b>		
MUEN 0002	Dana Chorale	1

or MUEN 0004	University Chorus	
MUEN 0006	Marching Band	1
MUEN 0023	Jazz Ensemble	1
MUEN 0023	Jazz Ensemble	1
MUEN 0023	Jazz Ensemble	1
<b>Chamber Ensembles: 2 hours</b>		
MUEN 0030	Jazz Combo	1
MUEN 0030	Jazz Combo	1
<b>Methods: 7 hours (indicate specific course number and title)</b>		
MUAC 2667	Jazz Improvisation 1	3
MUAC 3735	Jazz Methods	1
<b>Select 3 methods courses from the following:</b>		
MUAC 3732	Brass Methods	
MUAC 3733	Woodwind Methods	
MUAC 3734	String Methods	
MUAC 3755	Guitar Class	
MUAC 3759	Voice Class	
MUAC 3763	Percussion Methods	
<b>Music Education: 10 hours</b>		
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
<b>College of Education Requirements: 29 hours (must be taken for a grade)</b>		
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
Total Semester Hours		138

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.

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 0023	Jazz Ensemble	1
MATH 2623	Quantitative Reasoning	3
MUAC 1581	Class Piano 1	1
Semester Hours		17

**Spring**

Instrument or Voice 1502		2
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 XXXX		1
MUAC 1582	Class Piano 2	1
SPED 2630	Individuals with Exceptionalities in Society	3
ENGL 1551	Writing 2	3
CCAC 1500	College Success	3
Semester Hours		17

**Year 2**

**Fall**

Instrument or Voice 2601		2
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUEN 0023		1
MUED 2611	Computer Applications in Music Education	2
MUAC 3781	Jazz Class Piano 1	1
MUAC 3735	Jazz Methods	1
MUAC 3733	Woodwind Methods	1
MUHL 3771	Music History and Literature 1	3
CMST 1545	Communication Foundations	3
Semester Hours		18

**Spring**

Instrument or Voice 2602		2
MUTC 2632 & MUTC 2642	Music Theory 4 and Aural Theory 4	4
MUHL 3775	Jazz History	3
MUAC 3763	Percussion Methods	1
MUAC 3782	Jazz Class Piano 2	1
Application for Upper Division must be completed by this semester.		
Natural Science Elective + Lab		4
MUEN 0030	Jazz Combo	1
General Education Electives		3
Semester Hours		19

**Year 3**

**Fall**

Instrument or Voice 3701		2
MUED 4823	Music Teaching in Early Childhood (Pre K-3)	2
MUED 4821	Instrumental Music Education	2
MUTC 3712	Jazz Arranging 1	3
MUHL 3773	Music History and Literature 3	3
General Education Electives		3
MUEN 0023		1
All convocation requirements must be completed by the end of the third year for students who wish to teach in the second semester of the fourth year.		
Semester Hours		16

**Spring**

Instrument or Voice 3702		2
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MUED 4824	Music Teaching in the Middle School	2
MUHL 3774	Music History and Literature 4	3
MUCO 3715	Choral and Instrumental Conducting	3
PSYC 1560	General Psychology	3
General Education Requirements		3
MUEN 0023		1
Semester Hours		17

**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 is due September 15. Placement meeting with Music Education Coordinator must occur before September 15.

MULT 4807	Teaching Across the Curriculum	2
TERG 3710		3
Instrument or Voice 4801		2
EDFN 3708	Education and Society	3
MUAC 3759	Voice Class	1
MUEN 0030		1
MUEN 0023		1
MUED 4825	Music Teaching in the High School	2
General Education Electives		3
Semester Hours		18

**Spring**

SED 4842A	Student Teaching Seminar for Secondary Education	2
SED 4845	Supervised Student Teaching: Health (K-12)	1-10
Semester Hours		3-12
Total Semester Hours		125-134

# Bachelor of Music in Music Education, Keyboard Track

COURSE	TITLE	S.H.
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**I. General Education Requirements**

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)		

**II. Core Music Requirements**

**Music Theory: 19 hours**

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

**Music History and Literature: 12 hours**

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

**Professional Piano Skills: 4 hours**

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

**Conducting: 3 hours**

MUCO 3715	Choral and Instrumental Conducting	3
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**Applied Major: 14 hours**

1501		2
1502		2
2601		2
2602		2
3701		2
3702		2
4801		2

**Large Ensembles: 4 hours**

MUEN		1
MUEN		1
MUEN		1
MUEN		1

**Methods: 7 hours**

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	Teaching Choral Music or MUED 4821 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
Total Semester Hours		133

<sup>1</sup> Requires College of Education upper division status.

Year 1		
Fall		
		S.H.
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
Semester Hours		17

Spring		
		S.H.
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
Semester Hours		18

Year 2		
Fall		
		S.H.
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
Semester Hours		18

Spring		
		S.H.
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		

Year 3		
Fall		
		S.H.
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!

Spring		
		S.H.
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
Semester Hours		17

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: Spetember 15. Placement meeting with Music Education Coordinator must occur before September 15.		
		S.H.
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
Semester Hours		16

Spring		
		S.H.
SED 4842A	Student Teaching Seminar for Secondary Education	2
SED 4844	Supervised Student Teaching: Music (K-12)	10
Semester Hours		12
Total Semester Hours		133

## Bachelor of Music in Music Education, Voice Track

COURSE	TITLE	S.H.	
<b>I. General Education Requirements</b>			Students are required to complete the Senior Recital before student teaching.
Core Competencies		12	Total Semester Hours 134
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			
<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 4822	Teaching Choral Music	2	
Senior Recital		N/ C	
<b>III. Voice Emphasis</b>			
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	
<b>IV. College of Education Licensure Requirements</b>			
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	
			<b>Year 1</b>
			<b>Fall</b>
Instrument or Voice 1501			S.H. 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
Semester Hours			17
			<b>Spring</b>
Instrument or Voice 1502			2
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 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
			<b>Year 2</b>
			<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		3
MUHL 3771	Music History and Literature 1		3
Semester Hours			18
			<b>Spring</b>
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 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
			<b>Year 3</b>
			<b>Fall</b>
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

**Spring**

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
Semester Hours		20

**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
MUEN 0004	University Chorus	1
EDFN 3708	Education and Society	3
MUAC 3759	Voice Class	1
MUEN 00XX	Chamber Ensemble	1
Semester Hours		15

**Spring**

SED 4842A	Student Teaching Seminar for Secondary Education	2
SED 4844	Supervised Student Teaching: Music (K-12)	10
Semester Hours		12
Total Semester Hours		134

## 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	

**I. Music Theory**

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

**II. Music History and Literature**

MUHL 3771 or MUHL 3772	Music History and Literature 1 or 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

**III. Applied Study**

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

**IV. Audio Engineering and Technology**

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
Total Semester Hours		124

Passed TPE and Audition

**Year 1**

**Fall**

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
Semester Hours		11

<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
Semester Hours		16
<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
Instrument 2601		2
MUHL 2616	Survey of Jazz	3
MUIN 3762	Digital Sound Production	2
General Education Elective		3
Semester Hours		16
<b>Spring</b>		
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
Semester Hours		16
<b>Year 3</b>		
<b>Fall</b>		
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
Semester Hours		17
<b>Spring</b>		
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
Semester Hours		17
<b>Year 4</b>		
<b>Fall</b>		
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
Semester Hours		15
<b>Spring</b>		
MUHL 3775	Jazz History ( (suggested elective))	3
MUHL 3774	Music History and Literature 4	3
MUIN 4867	Senior Project	4
Music Electives		6
Semester Hours		16
Total Semester Hours		124

## 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	
<b>Total Semester Hours</b>	<b>127</b>	
Passed TPE and Audition		
<b>Year 1</b>		
<b>Fall</b>		
MUTC 1531 Music Theory 1		
& MUTC 1541 and Aural Theory 1	4	S.H.
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 Music Theory 2	4	
& MUTC 1542 and Aural Theory 2		
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 Music Theory 3	4	
& MUTC 2641 and Aural Theory 3		
MUAC 2681 Class Piano 3	1	
or MUAC 3781 or Jazz Class Piano 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 Music Theory 4	4	
& MUTC 2642 and Aural Theory 4		
MUAC 2682 Class Piano 4	1	
or MUAC 3782 or Jazz Class Piano 2		
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	
<b>II. Core Music Requirements</b>	
MUTC 1531 Music Theory 1 & MUTC 1541 and Aural Theory 1	4
Students who score below 80% on the Theory Placement Exam will substitute MUTC 1531N for MUTC 1531	
MUTC 1532 Music Theory 2 & MUTC 1542 and Aural Theory 2	4
Students in the Intensive Track will substitute MUTC 1532N for MUTC 1532	
MUTC 2631 Music Theory 3 & MUTC 2641 and Aural Theory 3	4
MUTC 2632 Music Theory 4 & MUTC 2642 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
<b>III. Jazz Emphasis</b>	
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
<b>Total Semester Hours</b>	<b>126</b>

Passed TPE and Audition

<b>Year 1</b>	
<b>Fall</b>	
MUTC 1531 Music Theory 1 & MUTC 1541 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 Jazz Ensemble & MUEN 0030 and Jazz Combo	2
Instrument 1501	2
MUAC 3735 Jazz Methods	1
General Education Electives	3

S.H.

ENGL 1550 Writing 1	3
<b>Semester Hours</b>	
<b>16</b>	
<b>Spring</b>	
MUTC 1532 Music Theory 2 & MUTC 1542 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	
ENGL 1551 Writing 2	3
<b>Semester Hours</b>	
<b>17</b>	
<b>Year 2</b>	
<b>Fall</b>	
MUTC 2631 Music Theory 3 & MUTC 2641 and Aural Theory 3	4
MUAC 3781 Jazz Class Piano 1	1
MUEN 0023 Jazz Ensemble & MUEN 0030 and Jazz Combo	2
Instrument 2603	3
MUHL 3771 Music History and Literature 1	3
MUAC 2667 Jazz Improvisation 1	3
<b>Semester Hours</b>	
<b>16</b>	
<b>Spring</b>	
MUTC 2632 Music Theory 4 & MUTC 2642 and Aural Theory 4	4
MUAC 3782 Jazz Class Piano 2	1
MUEN 0023 Jazz Ensemble or MUEN 0030 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
<b>Semester Hours</b>	
<b>18</b>	
<b>Year 3</b>	
<b>Fall</b>	
MUTC 3712 Jazz Arranging 1 or MUAC 4867 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	
<b>Semester Hours</b>	
<b>18</b>	
<b>Spring</b>	
MUTC 3713 Jazz Arranging 2 or MUAC 4868 or Jazz Improvisation 4	3
MUHL 3774 Music History and Literature 4	3
MUEN 0030 Jazz Combo	1
General Education Elective	
Instrument 3704	3
MUCO 3715 Choral and Instrumental Conducting	3
<b>Semester Hours</b>	
<b>16</b>	
<b>Year 4</b>	
<b>Fall</b>	
MUTC 3712 Jazz Arranging 1 or MUAC 4867 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
Semester Hours		14
<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
Semester Hours		11
Total Semester Hours		126

## 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
Total Semester Hours		127

Passed TPE and Audition

### Year 1

Fall	S.H.	
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
Semester Hours		14

### 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		
MUEN 00XX		1
General Education Electives		6
ENGL 1551	Writing 2	3
ORGN 1502	Organ	2
MUAC 2692	Professional Piano Skills 2	1
Semester Hours		17

### Year 2

Fall	S.H.	
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
Semester Hours		18

Spring		
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
Semester Hours		16
Year 3		
Fall		
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
Semester Hours		17
Spring		
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
Semester Hours		15
Year 4		
Fall		
Music Upper Division Electives		3
Music Electives		5
PIAN 2600A	Piano	1
ORGN 4805	Organ	4
MUED 5858	Piano Pedagogy	3
Semester Hours		16
Spring		
Music Upper Division Electives		6
Music Electives		3
PIAN 2600B	Piano	1
ORGN 4806	Organ	4
Semester Hours		14
Total Semester Hours		127

## 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.
I. General Education Requirements		
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
Junior/Senior Recitals		N/C
III. Piano Emphasis		
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
Total Semester Hours		127
Passed TPE and Audition		
Year 1		
Fall		
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
Semester Hours		14
<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
Semester Hours		17
<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
Semester Hours		16
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		16
<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
Semester Hours		19
<b>Spring</b>		
Music Upper Division Electives		6
Music Electives		3
PIAN 4806	Piano	4
MUEN 0051	Piano Chamber	1
Semester Hours		14
Total Semester Hours		127

## 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
Total Semester Hours		126

Passed TPE and Audition

**Year 1****Fall**

MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	S.H. 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		3
VOIC 1501	Voice	2
ENGL 1550	Writing 1	3
	Semester Hours	14

**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
General Education Electives		6
ENGL 1551	Writing 2	3
VOIC 1502	Voice	2
	Semester Hours	17

**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
MUHL 3771	Music History and Literature 1	3
General Education Electives		3
CMST 1545	Communication Foundations	3
VOIC 2605	Voice	2
	Semester Hours	17

**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
MUHL 3772	Music History and Literature 2	3

General Education Electives		3
VOIC 2606	Voice	2
	Semester Hours	14

**Year 3****Fall**

MUTC 3750	Analytical Techniques	3
MUHL 3773	Music History and Literature 3	3
MUEN 00XX		1
MUEN 00XX Chamber Ensemble		1
Natural Science + Lab		4
VOIC 3705	Voice	4
	Semester Hours	16

**Spring**

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
	Semester Hours	15

**Year 4****Fall**

Music Upper Division Electives		3
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
	Semester Hours	16

**Spring**

Music Upper Division Electives		3
VOIC 4806	Voice	4
MUAC 1556	Singer's Diction: English/Italian	1
MUAC 1557	Singer's Diction: German	1
GRMN 1550	Elementary German	4
	Semester Hours	13
	Total Semester Hours	122

## 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 & MUTC 1541	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	
<b>Upper-Division Courses</b>		
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 Theatre and Dance Introduction

For more than 50 years, University Theatre and The Department of Theatre & Dance has been offering courses, productions, and degree programs that critically and creatively serve the College, Youngstown State University, and the surrounding community. Our alumni are working throughout the theatre and entertainment industry. Our 16 full and part-time faculty and staff are working professionals within their disciplines and provide one-on-one mentoring to our students. In addition to a BA in Theatre Studies where students can focus on either Acting/Directing or Tech/Design, we also offer pre-professional BFA degree programs in either Theatre or Musical Theatre Track. Our BA in Dance Management is a unique program that offers students creative and educational courses and business courses that lead many graduates to open their own studios throughout the region.

## Welcome from the Chair

For more information contact the Department of Theatre & Dance Office at (330) 941-3810.

The Department of Theatre and Dance offers coursework leading to the following degrees:

- Bachelor of Arts in Theatre Studies with concentrations in Acting/Directing, Design/Tech, or Film/Video
- Bachelor of Arts in Dance Management
- Bachelor of Fine Arts in Musical Theatre Track
- Bachelor of Fine Arts in Theatre
- Minor in Musical Theatre, Puppetry, Theatre Studies, Dance, or Film

## Learning Outcomes

The student learning outcomes for the major in theatre are as follows:

- **Public Performances** – Students demonstrate competence in the creation and presentation of public theatre 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 theatre throughout the ages.
- **Informed Assessments of Quality** – Students demonstrate the ability to critically evaluate works of theatre.
- **Critical Thinking** – Students demonstrate the ability to define a desired goal in creating a work of theatre and find solutions to achieve that goal.

In addition to the above outcomes, learning outcomes in musical theatre 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 theatre style.

## Professional Societies

### Alpha Psi Omega

The Department of Theatre 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

**Katherine N. Garlick**, M.F.A., Assistant Professor

### Lecturer

**Maria Fenty Denison**, D.M.A., Lecturer

**Todd Dicken**, M.F.A., Lecturer

**Amy Wright**, M.F.A., Lecturer

## Majors

- Bachelor of Arts in Theatre Studies (p. 284)
- Bachelor of Fine Arts in Theatre (p. 289)
- Bachelor of Fine Arts in Musical Theatre Track (p. 287)
- Bachelor of Arts in Dance Management (p. 282)

## Minors

- Minor in Theatre (p. 291)
- Minor in Musical Theatre (p. 291)
- Minor in Dance (p. 290)
- Minor in Film Studies (p. 291)
- Minor in Puppetry (p. 291)

## 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 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 Theatre and Dance 1 s.h.**

Practical application of theatre 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 Theatre 2 s.h.**

The study of dance, movement, and staging for the musical theatre, 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.

Course may be repeated up to seven times.

**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 Theatre 3 s.h.**

The history and development of the musical theatre 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 Introduction to Theatre 3 s.h.**

The theory, history, cultural role, and physical characteristics of the theatre 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 Theatre 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 elements of production. Must be taken once each semester during the time that a student is in residence as a theatre major, for a minimum of 3, or its equivalent. Course may be repeated up to three times.

**Prereq.:** a declared major in theatre, 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 Theatre and Dance 1 s.h.**

Practical application of theatre 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 Theatre Lab 1 s.h.**

Applied skills course dealing with styles and techniques of performing for the musical theatre. 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 theatre 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 Theatre Participation 2 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 elements of production. Must be taken once each semester during the time that a student is in residence as a theatre major for a minimum of 4, or it's equivalent. Course may be repeated up to four times.

**Prereq.:** a declared major in theater and faculty permission.

**THTR 3701 Professional Preparation 2 s.h.**

This course covers topics vital to preparation for the business of professional theatre. 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 theatre 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 theatre 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 theatre or dance performance. Credit given for significant acting or dancing roles, assistant directing, or stage management assignments in Department of Theatre 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 theatre faculty committee approval.

**THTR 4860 Theatre History after 1700 3 s.h.**

History of the physical theatre 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 Theatre Workshop 1-3 s.h.**

Participation in the summer theatre program involving all aspects of theatrical production. Positions of significant responsibility.

**Prereq.:** Junior standing in Theatre, or permission of instructor.

**THTR 4868 Children's Theatre 3 s.h.**

A study of the process of theatre 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 theatre 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 Theatre History Before 1700 3 s.h.**

History of the physical theatre 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 Theatre 1-3 s.h.**

Independent work in theatre 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: Theatre 1-3 s.h.**

A practical application of drama/theatre 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 theatre 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 theatre 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 Theatre 3 s.h.**

In-depth study of selected aspects in theatre 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.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.
<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

### Business Sequence

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

### Year 1

Fall	S.H.	
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

### Spring

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

### Year 2

#### Fall

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

#### Spring

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

### Year 3

#### Fall

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



**Spring**

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

**Year 4****Fall**

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

**Spring**

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 Theatre 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:

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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 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
<b>General Studies</b>	
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	
<b>Electives: Select 24 s.h. of Theater electives or double major (at least 12 s.h. upper division).</b>	24
CHOOSE BETWEEN THE ACTING/DIRECTING TRACK or DESIGN/TECH TRACK	
<b>Minor Electives</b>	18
<b>Total Semester Hours</b>	124

**Year 1**

<b>Fall</b>		<b>S.H.</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>	16	

**Spring**

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>	16

**Year 2**

<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>	14

**Spring**

THTR 1590 History of Motion Pictures	3
or THTR 2690 or The Art of Motion Pictures	
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>	16

**Year 3**

<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>	15

**Spring**

THTR 4860 Theater History after 1700	3
THTR 4893 Independent Study in Theater	3
or THTR 4895 or Arts in Education Internship: Theater	
Natural Science	3
THTR 3700C Theater Participation 2	1
Minor/Double Major	3
Elective/Double Major	3
<b>Semester Hours</b>	16

**Year 4**

<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>	16

**Spring**

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>	15
<b>Total Semester Hours</b>	124

## Learning Outcomes

1. Pubic Performances – Students will competently create and present public theater events, either as a 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 Theatre 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	
Social Science		6
Social and Personal Awareness		6
General Education / First Year Experience		3
Natural Sciences (2 courses, one must include a lab)		7
Foreign Language 1550		4
Foreign Language 2660		4
Grade of "C" or better is required. Courses cannot be taken "CR/NC"		
<b>Core Courses</b>		
THTR 1512	Survey of Musical Theater	
THTR 1559	Play Production	3
THTR 1590	History of Motion Pictures	
	or THTR 2690 The Art of Motion Pictures	
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	
THTR 3763	Scene Design	3
	or THTR 3765 Lighting Design	
	or THTR 3769 Costume Design	
ENGL 3765	Film Genres	3
THTR 4893	Independent Study in Theater	3
37/48XX Film/Video Studies Elective		3
<b>Choose one Specialization (18 hours):</b>		18
<b>Production (20 hours)</b>		
TCOM 1580	Introduction to Telecommunication Studies	
TCOM 1581	Telecommunication Technologies	
TCOM 2682	Scriptwriting for Electronic Media	
TCOM 2683	Media Operations and Performance	
TCOM 3781	Audio Production	
TCOM 3782	Video Production 1	
TCOM 4850	Advanced Audio/Video Production and Editing	
<b>Visual Media and Design</b>		
ART 1501	Fundamentals of 2D Design	
ART 2691	Introduction to Digital Media	
ART 3792	Video Art	
ART 3796	Ideation	
ART 4891	Multimedia Design	
Visual M&D Upper Division Elective		
<b>Critical Studies</b>		

THTR 1590	History of Motion Pictures or THTR 2690The Art of Motion Pictures	
ENGL 3700	Literary Study	
ENGL 3765	Film Genres	
ENGL 4865	Selected Topics in Film	
	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>

**Year 1**

<b>Fall</b>		
ENGL 1550	Writing 1	3
TCOM 1580	Introduction to Telecommunication Studies or ART 1501 or THTR 1590	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>

**Spring**

ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
THTR 1590	History of Motion Pictures or THTR 2690	3
THTR 1561	Stagecraft	3
THTR 2600B	Theater Participation	1
TCOM 1581	Telecommunication Technologies or ART 2691 or THTR 2690 or THTR 1590	3
	<b>Semester Hours</b>	<b>16</b>

**Year 2**

<b>Fall</b>		
CMST 2650	Rhetoric of Film	3
THTR 2600C	Theater Participation	1
Approved MATH Course		3
TCOM 2682	Scriptwriting for Electronic Media or ART 3792 or ENGL 3700	3
Science with Lab		4
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**

<b>Fall</b>		
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**

<b>Fall</b>		
THTR 3700D	Theater Participation 2	1
Social Science Gen Ed		3
THTR 3762	Directing 1 or THTR 4870	3
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 Theatre Track

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.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. 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>		3
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>		4

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>		6

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 & MUTC 1541	Music Theory 1 and Aural Theory 1	4

**Must take THT 2664 Musical Theater Lab Twice** 2

**Select five s.h. from the following:** 5

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	

Total Semester Hours 123

<b>Year 1</b>		S.H.
<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
Semester Hours		16

<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
Semester Hours		15

**Year 2**

**Fall**

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
Semester Hours		16

**Spring**

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
Semester Hours		15

**Year 3**

**Fall**

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
Semester Hours		15

**Spring**

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
Semester Hours		17

**Year 4**

**Fall**

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
Semester Hours		15

**Spring**

VOIC 4802	Voice	2
THTR 4898	Senior Project	3
Upper Division THTR Elective		3
Social & Personal Awareness GER		3

General Education Elective	3	
Semester Hours	14	
Total Semester Hours		123

## 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 Theatre

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>

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
THTR 3768	Script Analysis	3
THTR 2668	Acting 1: Fundamentals	3
THTR 2600	Theatre Participation	1
ENGL 1550	Writing 1	3
CCAC 1500	College Success	3
DNCE/KSS Elective		1
Semester Hours		14
<b>Spring</b>		
THTR 1561	Stagecraft	3
THTR 2600	Theatre Participation	1
THTR 2667	Acting 2: Voice for the Actor	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
ART 1540	Masterpieces of World Art	3
Semester Hours		16
<b>Year 2</b>		
<b>Fall</b>		
THTR 2600	Theatre Participation	1
THTR 3762	Directing 1	3
THTR 4891	Theatre History Before 1700	3
or THTR 4860	or Theatre History after 1700	
GEN ED Science with Lab		4
MATH 2623	Quantitative Reasoning	3
DNCE/KSS Elective		2
Semester Hours		16
<b>Spring</b>		
THTR 3700	Theatre Participation 2	1
Arts and Humanities Elective		3

THTR 3763	Scene Design	3
or THTR 3765	or Lighting Design	
or THTR 3769	or Costume Design	
THTR 3766	Stage Combat	3
or THTR 3764	or History of Stage Costume	
THTR 2661	Stage Management	1
THTR 3791	Rehearsal and Performance	3
Semester Hours		14

<b>Year 3</b>		
<b>Fall</b>		
THTR 3700	Theatre Participation 2	1
THTR 4891	Theatre History Before 1700	3
or THTR 4860	or Theatre History after 1700	
THTR 1563	Costume Construction and Craft	3
or THTR 4870	or Acting 4: Acting on Camera	
THTR 3791	Rehearsal and Performance	3
or THTR 3792	or Projects in Production	
SPA Elective		3
Social Science Elective		3
Semester Hours		16

<b>Spring</b>		
THTR 3700	Theatre Participation 2	1
THTR 3701	Professional Preparation	2
THTR 3763	Scene Design	3
or THTR 3765	or Lighting Design	
or THTR 3769	or Costume Design	
Science Elective		3
THTR 4863	Acting 3: Styles	3
or THTR 5864	or Directing 2	
or THTR 3761	or Stage Makeup	
Social Science Elective		3
Semester Hours		15

<b>Year 4</b>		
<b>Fall</b>		
THTR 3700	Theatre Participation 2	1
THTR Elective		3
THTR Elective		3
GEN ED Elective		3
Arts and Humanities Elective		3
Any Upper Division Elective		3
Semester Hours		16

<b>Spring</b>		
THTR 4898	Senior Project	3
THTR 3764	History of Stage Costume	3
or THTR 3766	or Stage Combat	
THTR 4863	Acting 3: Styles	3
or THTR 5864	or Directing 2	
Any Elective		3
Any Elective		3
Semester Hours		15
Total Semester Hours		122

## 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	
Total Semester Hours		23

<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 Theatre

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
Total Semester Hours		18

## 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	
Total Semester Hours		18

## Minor in Puppetry

COURSE	TITLE	S.H.
THTR 2667	Acting 2: Voice for the Actor	3
THTR 3762	Directing 1	3
THTR 4899	Topics in Theatre	3
THTR 4868	Children's Theatre	3
THTR 4869	Creative Dramatics	3
THTR 3768	Script Analysis	3
Total Semester Hours		18

## Minor in Musical Theatre

COURSE	TITLE	S.H.
VOIC 1500A	Voice	1
VOIC 1500B	Voice	1
VOIC 2600A	Voice	1
VOIC 2600B	Voice	1
THTR 2668	Acting 1: Fundamentals	3
DNCE 1570	Tap and Jazz 1	1
THTR 2664	Musical Theatre Lab	1
THTR 3768	Script Analysis	3
THTR 3762	Directing 1	3
THTR 1559	Play Production	3
Total Semester Hours		18

## The College of Liberal Arts and Social Sciences

*Kristine Blair, Dean*

*Martha Pallante, Associate 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 World Languages and Cultures
- Department of Geography and Urban-Regional Studies
- 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	
Total Semester Hours		18

**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>		<b>12</b>
Total Semester Hours		18

**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)

#### Year 1

Fall		S.H.
ENGL 1550	Writing 1	3
MATH 1510	College Algebra	4
Natural Science GER + Lab	OTM approved	4

Arts & Humanities GER	OTM approved	3
Semester Hours		14

#### Spring

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
Semester Hours		15

#### Year 2

##### Fall

CMST 1545	Communication Foundations	3
Social Science GER	OTM approved	3
Concentration Course		3
Concentration Course		3
Concentration Course		3
Semester Hours		15

##### Spring

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
Semester Hours		16
Total Semester Hours		60

## 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.yzu.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.yzu.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.yzu.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. Hesel**, 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

#### Lecturer

Sarah E. Jenyk, M.A., Senior Lecturer

## Majors

- BA in Economics (p. 299)
- "4+1" Bachelor's/Master's Program (p. 301)

## Minors

- Economics Minor (p. 301)
- Economics with Statistics Minor (p. 301)

### 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.:** 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.:** 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 3704 Emerging Economies in Asia 3 s.h.**

Introduction to emerging economies in Asia, mainly in East Asia and India where the economies in recent decades have generally performed well compared with the rest of the world. Focus is on the development strategies and policies of the region's major economies with an aim in contrasting their experience with the industrialized nations in the West.

**Prereq.:** ECON 1501, ECON 2610, or ASST 1550.

**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.

**ECON 5861 SAS Programming for Data Analysis 3 s.h.**

An introduction to SAS programming for data 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.:** ECON 3790 or STAT 2601 or STAT 3717 or STAT 3743.

**Cross-listed:** STAT 5811.

## 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.yosu.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	Arts and Humanities (Gen Ed)	3
MATH 1572	Calculus 2	4	Elective	2
MATH 2673	Calculus 3	4		
MATH 3720	Linear Algebra and Matrix Theory	3	Semester Hours	14
<b>NOTE:</b> 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.				
<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		
Semester Hours		14		
<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		
Semester Hours		16		
<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		
Semester Hours		15		
<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		
Semester Hours		16		
<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		
<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		3		
Elective 37XX or higher		3		
Semester Hours		15		
<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		
Semester Hours		15		
Total Semester Hours				120

## 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. 301) and Professional & Technical Writing (PTW) (p. 308)
- Undergraduate **minors** in English Studies (p. 310), British and American Literature (p. 309), Professional & Technical Writing (PTW) (p. 311), Linguistics (p. 310), and Creative Writing (p. 310)
- **Master of Arts (MA)** degrees in English (<http://catalog.yzu.edu/graduate/graduate-programs/ma-english>) and in English with a PTW focus (<http://catalog.yzu.edu/graduate/graduate-programs/ma-english>)
- A consorial master of fine arts (<http://catalog.yzu.edu/graduate/graduate-programs/mfa-creative-writing>) (**MFA**) degree
- **Graduate certificates** in Literature for Children and Young Adults (<http://catalog.yzu.edu/graduate/graduate-programs/certificate-literature-children-young-adults>), Teaching of Writing (<http://catalog.yzu.edu/graduate/graduate-programs/certificate-teaching-writing>), Teaching English to Speakers of Other Languages (TESOL (<http://catalog.yzu.edu/graduate/graduate-programs/certificate-teaching-english-to-speakers-of-other-languages>)), and Professional & Technical Writing (PTW) (<http://catalog.yzu.edu/graduate/graduate-programs/certificate-professional-technical-writing>)

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.ysu.edu/academics/college-liberal-arts-social-sciences/english-major>).

#### Chair

**Jeffrey M. Buchanan**, Ph.D., Chair, Professor

#### Professor

**Corey E. Andrews**, Ph.D., Professor

**Diana Awad-Scrocco**, Ph.D., Associate 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., Associate 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., Associate 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

#### Lecturer

**Russell Brickey**, Ph.D., Lecturer

**Ronald Fields**, M.A., Lecturer

**Amy Flick**, M.A., Senior Lecturer

**Jacklynn Mercer**, M.A., Lecturer

**Guy Shebat**, M.A., Senior Lecturer

**Cynthia Vigliotti**, M.A., Senior Lecturer

## Majors

- BA in English (p. 306)
- BA in Professional and Technical Writing (PTW) (p. 308)

## Minors

- Minor in English Studies (p. 310)
- Minor in British and American Studies (p. 309)
- Minor in Professional Writing and Editing (p. 311)
- Minor in Web Communications (p. 311)
- Minor in Linguistics (p. 310)
- Minor in Creative Writing (p. 310)

### 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 Corequisite Support for Writing 1 1 s.h.

This course is intended to provide corequisite support for students requiring remediation in writing while they are concurrently enrolled in English 1550. Emphasis will be placed on the development of college-level writing conventions, organizational strategies, 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. Does not count toward a degree.

**Prereq.:** Concurrent enrollment in paired section of English 1550.



**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.

**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.

**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.:** ENGL 2651 or ENGL 3755.

**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.:** ENGL 2651 or ENGL 3755.

**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.:** ENGL 2651 or ENGL 3755.

**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.:** ENGL 2651 or ENGL 3755.

**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.

**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.

**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.

**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.

**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.

**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.

**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.

**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.

**ENGL 4890 Senior Seminar 3 s.h.**

Study of literature, linguistics, or criticism and theory requiring a long, critical, research-based paper.

**Prereq.:** ENGL 3700 and at least one of the following 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)		
<b>Major Requirements</b>		
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
<b>Language Studies</b>		

ENGL 3755	Principles of Linguistic Study	3
or ENGL 3757	Development of the English Language	
<b>British Literature Studies</b>		3
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	
<b>American Literature Studies</b>		
Select one of the following:		
ENGL 3770	American Literature in Historical Perspective	3
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
<b>Advanced Writing</b>		
Select one of the following:		
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	
<b>Popular Culture Studies</b>		
Select one of the following:		
ENGL 3750	Language and Culture	
ENGL 3765	Film Genres	
ENGL 3737	Popular Culture Studies	
ENGL 4865	Selected Topics in Film	
<b>Minor</b>		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).

<b>Year 1</b>		
<b>Fall</b>		<b>S.H.</b>
NS XXXX		3
AH XXXX		3
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
FNLG 1550	Elementary Foreign Language	4
Semester Hours		16

<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
Semester Hours		16
<b>Year 2</b>		
<b>Fall</b>		
ENGL 3700	Literary Study	3
ENGL 3755	Principles of Linguistic Study	3
or ENGL 3757	or	
ENGL 26XX, 37XX, or 48XX: Multicultural Studies <sup>5</sup>		3
Minor XXXX		3
NS/Lab		4
Semester Hours		16
<b>Spring</b>		
ENGL 3710	British Literature 1	3
ENGL 3712	American Literature 1	3
Minor course		3
SS		3
SPA		3
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		18
<b>Year 4</b>		
<b>Fall</b>		
ENGL 36XX or 48XX Upper-Div Amer or Brit Lit <sup>1 OR 2</sup>		3
Minor: Upper-division		3
Elective		3
Elective		3
Semester Hours		12
<b>Spring</b>		
ENGL 4890	Senior Seminar	3
Minor: Upper-division		3
Elective		3
Elective		3
Semester Hours		12
Total Semester Hours		120



<sup>1</sup> 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).

<sup>2</sup> 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).

<sup>3</sup> 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 (Screenwriting), 3849 (Writing the Youth Novel)

<sup>4</sup> 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.		
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	
<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>		<b>S.H.</b>
Natural Sciences		3
Arts & Humanities		3
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
Foreign Language 1550		4
Semester Hours		16

<b>Spring</b>		
Social Sciences		3
Social & Personal Awareness		3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Foreign Language 2600		4
Semester Hours		16

<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
Semester Hours		16

<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
Semester Hours		15

<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
Semester Hours		15

<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
Semester Hours		15

<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
Semester Hours		15

<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
Semester Hours		12
Total Semester Hours		120

Notes:

- The Professional Area requires 18SH in various areas; GER courses may be counted toward it.
- Req. II includes 12 upper-division SH in non-PTW classes, including linguistics, journalism, and creative writing.
- 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
Total Semester Hours		18

## 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: 3

### 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	
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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

<b>Additional Coursework for Groups I and II</b>	
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	
<b>Total Semester Hours</b>	<b>18</b>

## 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	
<b>Total Semester Hours</b>		<b>18</b>

## 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	
<b>Total Semester Hours</b>		<b>20</b>

## Department of World Languages and Cultures

See Degree Requirements on the College of Liberal Arts and Social Sciences (p. 291) page for information about foreign language requirements.

### Contact Information

John Sarkissian, Department Chair

[jesarkissian@ysu.edu](mailto:jesarkissian@ysu.edu)

330-941-3460 or -3461

## Introduction to the Department

The Department of World Languages and Cultures 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 as 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., Associate Professor

**Paolo Luca Bernardini**, Ph.D., Professor

**Alena Kirova**, Ph.D., Assistant Professor

**Ndinzi Masagara**, Ph.D., Associate Professor

**Diana Q. Palardy**, Ph.D., Associate Professor

**Gina Villamizar**, Ph.D., Assistant Professor

## Majors

- BA in Italian (p. 317)
- BA in Spanish (p. 318)
- BS in Italian Education (in conjunction with Beeghly College of Education) (<http://catalog.yosu.edu/undergraduate/colleges-programs/college-education/department-teacher-education/italian-p-12-multi-age-license/#curriculumsheettext>)
- BS in Spanish Education (in conjunction with Beeghly College of Education) (<http://www.yosu.edu/academics/beeghly-college-education/spanish-education-major>)

## Minors

- French Minor (p. 320)
- Italian Minor (p. 320)
- Spanish Minor (p. 320)
- Greek Studies Minor (p. 320)
- Latin Minor (p. 320)

## Certificates

- French Certificate (p. 321)
- Italian Certificate (p. 321)
- Spanish Certificate (p. 321)

## 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 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 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 3770 Special Topics in Italian 4 s.h.**

Study of an author, genre, movement or historical period in Italian literature, culture or history. May be repeated if the topic changes.

**Prereq.:** ITAL 2608.

**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 linguistic 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 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 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	
Total Semester Hours		71

<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.yzu.edu/undergraduate/colleges-programs/college->



liberal-arts-social-sciences/department-foreign-languages-literatures/ba-italian/YSU\_in\_Cefalu.pdf).

Year 1		S.H.
<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
Semester Hours		16
<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
Semester Hours		16
<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
Semester Hours		14
<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
Semester Hours		13-17
<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
Semester Hours		16
<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
Semester Hours		17-13
<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

Semester Hours		14
<b>Spring</b>		
ITAL 3700-level course <sup>1</sup>		4
Minor 3700/4800-level course		3
ITAL 4880	Italian Conversation and Composition	4
	Capstone	
Elective 3700/4800-level		3
Semester Hours		14
Total Semester Hours		120

<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	
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		
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)	
Total Semester Hours		72-73

<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.

Year 1		
Fall		S.H.
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
Semester Hours		16
Spring		
SPAN 2600	Intermediate Spanish	4
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Arts and Humanities GER		3
Natural Science GER		3
Semester Hours		16
Year 2		
Fall		
SPAN 2605	Advanced Intermediate Spanish	3
Social Science GER		3
Social and Personal Awareness GER		3
Arts and Humanities GER		3
Minor course		3
Semester Hours		15
Spring		
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
Total Semester Hours		18-19

## 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)	
Total Semester Hours		19-20

## 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
Total Semester Hours		18-20

## 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. 317).

## 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)	
Total Semester Hours		19-20

## 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
Total Semester Hours		18-19

## 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. 318).

## 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

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
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. 317).

## 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

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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 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 SPAN 2600 Intermediate Spanish, thereby expediting the attainment of a Spanish certificate.

## 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. 318).

## 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 and Urban-Regional Studies

## 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 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 and Urban-Regional Studies 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. 326)
- BA in Geography GIS/Remote Sensing Track (p. 328)
- Spatial Information Systems (SIS) Individualized Curriculum Program (ICP) (p. 330)

## Minors

- General Geography (p. 332)
- Environmental Geography (p. 331)
- Geographic Information Systems (p. 331)
- Human Geography (p. 331)
- Regional Geography (p. 332)

## Certificates

- Geographic Information Science and Technology (p. 329)

### 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.

**Gen Ed:** Natural Science.

### 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 Nino/La Nina.

**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
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

**Geography Skills - Select two of the following (6 s.h.):** 6

GEOG 3701	Introduction to Geographic Information Science
GEOG 3702	Introduction to Remote Sensing
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 5812	Global Positioning Systems and GIScience
GEOG 5814	3D Modeling and GIS

**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

#### Year 1

Fall	S.H.
GEOG 1503 Physical Geography	3
ENGL 1550 Writing 1	3
MATH 1510 College Algebra (Mathematics Requirement) or Math 2623 or	4
FNLG 1550 Elementary Foreign Language	4
LASS 1510 Exploring Critical Questions in LASS	3
Semester Hours	
	17

#### Spring

GEOG 2626 World Geography or GEOG 2640 or Human Geography	3
GEOG 2610 Map Use and Interpretation or GEOG 2611 or Geospatial Foundations	3
ENGL 1551 Writing 2	3
FNLG 2600 Intermediate Foreign Language	4
Arts and Humanities 15XX/26XX-level course	3
Semester Hours	
	16

#### Year 2

Fall	S.H.
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
Semester Hours	
	16

#### Spring

Geography Elective 37XX-level course	3
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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>
<b>Year 3</b>	
<b>Fall</b>	
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>
<b>Spring</b>	
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>
<b>Year 4</b>	
<b>Fall</b>	
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>
<b>Spring</b>	
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

<b>Year 1</b>		
<b>Fall</b>		<b>S.H.</b>
GEOG 1503 Physical Geography	3	
ENGL 1550 Writing 1	3	
MATH 1510 College Algebra		
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 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 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>

## 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.

## 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>		
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	
<b>Select one 3 s.h. GEOG course at the 3700-level or higher</b>		3
<b>Four Required Support Courses (12-13 s.h.):</b>		
CSIS 1590	Survey of Computer Science and Information Systems	
CSIS 1595	Fundamentals of Programming and Problem- Solving 1	
CSIS 3722	Development of Databases	
<b>Select one of the following courses which satisfies the General Education MATH requirement:</b>		
STAT 2601	Introductory Statistics	
STAT 2625	Stat Lit and Crit Reasoning	
MATH 2623	Quantitative Reasoning	
Total Hours Required for the Degree = 120		
<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
Semester Hours		16-17
<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
Semester Hours		16
<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
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

**Year 3**

**Fall**

CMST 1545 Communication Foundations	3
GEOG 4801 Advanced Geographic Information Science or GEOG 4802 or Advanced Remote Sensing	3
Social Science 15XX/26XX course	3
Social and Personal Awareness 15XX/26XX- level course	3
CSIS 3722 Development of Databases	3
Semester Hours	15

**Spring**

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

**Year 4**

**Fall**

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

**Spring**

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 and Urban-Regional Studies. 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)
GEOL 2615	Geology and the Environment 1 (Prerequisite GEOL 1504 or GEOL 1505 or GEOL 2611)
GEOL 3706	Geology of Economic Mineral Deposits (Prerequisite GEOL 1505 or GEOL 2605)
GEOL 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
<b>Select 6 s.h. from the following courses:</b> 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
<b>Total Number of Semester Hours - 18</b>		

## Minor in Regional Geography

COURSE	TITLE	S.H.
<b>Select 3 s.h. from the following courses:</b>		
GEOG 2626	World Geography	3
GEOG 2640	Human Geography	3
<b>Select 15 s.h. from the following courses:</b>		
GEOG 3713	Geography of South America	15
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	
The following may be used to fulfill the required 15 s.h. if the course theme is regionally related:		
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>		
GEOG 2626	World Geography	3
GEOG 2640	Human Geography	3
<b>Select 3 s.h. from the following physical/environmental geography courses:</b>		
GEOG 2630	Weather	3
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>		
GEOG 2610	Map Use and Interpretation	3
GEOG 2611	Geospatial Foundations	
<b>Select 3 s.h. from the following human and regional geography courses:</b>		
GEOG 2650	Global Economic Landscapes	3
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>		
GEOG 3701	Introduction to Geographic Information Science	3
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.		
Total Semester Hours		18

## 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 ten, 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

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. 337). 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

**Amy Fluker**, Ph.D., Assistant 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

**Lecturer**

**Kyle Starkey**, M.A., Lecturer

## Majors

- Bachelor in History (p. 337)

## Minors

- Minor in History (p. 340)
- Minor in Applied History (p. 340)
- Judaic Studies Minor (p. 341)

## Certificates

- Certificate in Historic Preservation (p. 339)

### 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 3703 **Nineteenth Century America** 3 s.h.

United States history from the War of 1812 through the Spanish-American War. Emphasis on constitutional developments, the issue of slavery, the Civil War and Industrialization.

**Prereq.:** HIST 1501 or HIST 2605 or HIST 2606.



**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: 1900-1945 3 s.h.**

Covers events in the United States from 1900 through the end of World War II. Social, political and cultural history of the Progressive era, World Wars I and II, the Roaring Twenties, the Great Depression and the New Deal.  
**Prereq.:** HIST 1501 or 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 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 or ASST 1550.

**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 ASST 1550 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 ASST 1550 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 to the Present 3 s.h.**

An integrative history of Britain and its empire, from the Glorious Revolution to the Brexit vote in 2016. Focus is on how the acquisition of an empire influenced the development of British liberal politics, industrial and multicultural society, economic morality, and a diverse and world-ranging culture.

**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 4850A International Area Study Holocaust and Human Rights 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. 337), 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. 337)) 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:

<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.

<b>Year 1</b>		
<b>Fall</b>		<b>S.H.</b>
HIST 1511	World Civilization to 1500	3
or HIST 1512	or World Civilization from 1500	
HIST 2605	Turning Points in United States History 1	3
or HIST 2606	or Turning Points in United States History 2	
ENGL 1550	Writing 1	3
MATH 2623	Quantitative Reasoning	3
Foreign Language 1550		4
Semester Hours		16



**Spring**

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
Semester Hours		16

**Year 2**

**Fall**

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
Semester Hours		16

**Spring**

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
Semester Hours		17

**Year 3**

**Fall**

HIST 37XX Gr B America		3
HIST 37XX Gr D Europe		3
Minor 37XX course		3
NS 15XX/26XX		3
Elective 15XX/26XX		3
Semester Hours		15

**Spring**

HIST 37XX Gr C or B		3
Minor 37XX course		3
HUM 15XX/26XX		3
NS+Lab 15XX/26XX		3
Elective 37XX		3
Semester Hours		15

**Year 4**

**Fall**

HIST 37XX Gr B or D		3
Minor 37XX course		3
Elective		1-3
Elective		3
Elective		3
Semester Hours		13-15

**Spring**

HIST 4870	Senior Research Seminar	3
Minor 37XX course		3
Elective		3
Elective		3
Semester Hours		12
Total Semester Hours		120-122

*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	
Total Semester Hours		30

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
Total Semester Hours		24

## 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.

### Group B (American)

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	12
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	
Total Semester Hours		18

<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	
Total Semester Hours		18

## 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.yosu.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.ysu.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., 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. 345)
- Religious Studies Major (p. 347)
- Philosophy Major, Pre-Counseling Tracks (p. 346)
- Religious Studies Major, Pre-Counseling Tracks (p. 349)

## Minors

- Professional Ethics Minor (p. 351)
- Philosophy Minor (p. 351)
- Religious Studies Minor (p. 351)
- Islamic Studies Minor (p. 351)

## 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 3745 Classical Asian Philosophy 3 s.h.**

Focus is on selected classical philosophical texts in Hinduism, Buddhism, Confucianism, and Taoism. Any lower division course in Philosophy or ASST 1550.

**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 3723 History of Christian Thought 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.:** any 2600 level REL course or 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 or ASST 1550.

**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 or REL 2617 or ASST 1550.

**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	
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
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
Total Semester Hours		120

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.

Year 1		
Fall		
		S.H.
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
Semester Hours		16
Spring		
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
Semester Hours		16
Year 2		
Fall		
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
Semester Hours		15
Spring		
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
Semester Hours		16
Year 3		
Fall		
PHIL 3711	General Ethics	3
PHIL Elective		3
Minor 15XX/26XX course		3
Elective 37XX		3
Elective 37XX		3
Semester Hours		15
Spring		
PHIL Elective 37XX		3
Minor 37XX course		3
Elective		3
Elective 37XX		3
Elective 37XX		3
Semester Hours		15
Year 4		
Fall		
PHIL 4820	Seminar in Philosophy	3
Minor 37XX course		3
Elective		3
Elective 37XX		3
Elective 37XX		3
Semester Hours		15
Spring		
PHIL 4861	Senior Capstone Project	3
PHIL 4859	Capstone Cooperative Seminar	1

Minor 37XX course	3
Elective 37XX	3
Elective 37XX	3
Semester Hours	
Total Semester Hours	
	121

## 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>	Must complete a minimum number of electives to meet the 120sh total graduation requirement	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.

<b>Year 1</b>		
<b>Fall</b>		
	<b>S.H.</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
Semester Hours		16
<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
Semester Hours		16
<b>Year 2</b>		
<b>Fall</b>		
PHIL 2619	Introduction to Logic	3
or MATH 2623	or Quantitative Reasoning	
Natural Science 15XX/26XX		3
PHIL 2612	Ancient & Medieval Philosophy	3
Social and Personal Awareness 15XX/26XX		3
PSYC 3702	Abnormal Psychology	3
Semester Hours		15
<b>Spring</b>		
PHIL 1561	Technology and Human Values	3
PHIL 1565	Critical Thinking	3
or PHIL 2619	or Introduction to Logic	
PHIL 3702	History of Modern Philosophy	3
Natural Science plus lab 15XX/26XX		4

PSYC 3775	Personality	3
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		12
<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
Semester Hours		15
<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
Semester Hours		16
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.

## 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	Quantitative Reasoning	
	or PHIL 2619 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>		18
<b>Electives</b> Must complete a minimum number of electives to meet the 120sh total graduation requirement		
Total Degree Hours = 120 s.h.		

**Year 1**

Fall		S.H.
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
Semester Hours		16

**Spring**

REL 37XX Group A		3
Social Science 15XX/26XX		3
ENGL 1551	Writing 2	3
REL 37XX Group B		3
Foreign Language 2600		4
Semester Hours		16

**Year 2**

Fall		
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
Semester Hours		15

**Spring**

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
Semester Hours		16

**Year 3**

Fall		
Elective		3
REL Elective		3
Minor 15XX/26XX course		3
Elective 37XX		3



Elective 37XX		3
Semester Hours		15
<b>Spring</b>		
REL Elective		3
Minor 37XX course		3
Elective		3
Elective 37XX		3
Elective 37XX		3
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		13
Total Semester Hours		121

## 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	
<b>Methodologies in the Study of Religion</b>		
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	
<b>Scriptural Studies</b>		
Select one of the following:		3
REL 3731	Hebrew Scriptures	
REL 3732	Jesus and the Gospels	
REL 3733	Women And the Bible	
<b>Religious Studies</b>		
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>		
<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:		
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
<b>Total Semester Hours</b>		<b>120</b>

<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.

**Year 1**

<b>Fall</b>	<b>S.H.</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
<b>Semester Hours</b>		<b>16</b>

**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
<b>Semester Hours</b>		<b>16</b>

**Year 2**

<b>Fall</b>		
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	
<b>Semester Hours</b>		<b>15</b>

**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
<b>Semester Hours</b>		<b>16</b>

**Year 3**

<b>Fall</b>		
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
<b>Semester Hours</b>		<b>15</b>

**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**

<b>Fall</b>		
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>
<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.

## 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)	
Total Semester Hours		18

## 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
Total Semester Hours		18

## 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	
Total Semester Hours		18

## 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.

Total Semester Hours	18
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## 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

**Cryshanna A. Jackson Leftwich**, Ph.D., Associate Professor, Acting Chair

**Paul A. Sracic**, Ph.D., Professor, Chair

### Professor

**Adam L. Fuller**, Ph.D., Assistant Professor

**Keith J. Lepak**, Ph.D., Associate Professor

### Lecturer

**Ronald Slipski**, J.D., Lecturer

## Majors

- Political Science Major (p. 354)
- Foreign Affairs Track (p. 355)
- Public Management Program (p. 357)

## Minors

- Peace and Conflict Studies Minor (p. 356)
- Political Science Minor (p. 357)
- American Politics Minor (p. 356)
- Foreign Affairs Minor (p. 356)

### **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, Social Science, 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 or ASST 1550.

**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 3765 Israeli Politics 3 s.h.**

A survey of the government and politics of the state of Israel, focusing on the role of Zionism, the various Israeli political parties, the problems of Israel's lack of a constitution, the operations of the Israeli parliamentary system, and the social, religious, economic, ethnic, cultural and foreign policy debates within Israeli government.

**Prereq.:** POL 2640 or POL 2660 or HIST 1511 or HIST 3788 or HIST 3789.

**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

**Political Thought**

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

**Contemporary and International**

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

**Capstone Course**

POL 4801	Senior Research Seminar	3
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**Additional Required Hours**

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>

**Year 1**

Fall	S.H.	
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
Semester Hours		16
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		15
<b>Year 4</b>		
<b>Fall</b>		
POL 37XX		3
Minor 37XX		3
Elective		3
Elective		3
Elective		3
Semester Hours		15
<b>Spring</b>		
POL 4801	Senior Research Seminar	3
Minor 37XX		3
Elective		3

Elective	3
Semester Hours	
Total Semester Hours	
	120

## 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>		
Select one of the following:		3
POL 3785	Political Thought 1	
POL 3786	Political Thought 2	
POL 3787	Political Thought 3	
<b>Upper-Division Courses</b>		
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.		
<b>International Relations</b>		
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	
<b>Comparative Politics</b>		
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
<b>Total Semester Hours</b>		<b>120</b>

## 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	Contemporary World Governments	3
or POL 2660	International Relations	
Select four upper-division political science courses.		12
Total Semester Hours		18

## 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	Fundamentals of Management	3
or MGT 3750	Managing Individuals in Organizations	
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
Total Semester Hours		120

### Year 1

Fall		S.H.
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
Semester Hours		16

### Spring

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
Semester Hours		16

### Year 2

Fall		
Arts and Humanities 15XX/26XX		3
Social and Personal Awareness 15XX/26XX		3
ECON 2610	Principles 1: Microeconomics	3
Natural Science 15XX/26XX		3
Social Science 15XX/26XX		3
Semester Hours		15

### Spring

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
Semester Hours		15

### Year 3

Fall		
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
Semester Hours		15

### Spring

POL 3718	American Public Policy and Policy Analysis	3
Social Science 15XX		3

MGT 3725	Fundamentals of Management Human Behavior in Organization	OR MGT 3750	3
SOC 3701	Social Statistics		4
Elective			3
Semester Hours			16
<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
Semester Hours			14-16
<b>Spring</b>			
POL 4801	Senior Research Seminar		3
Elective			3
Elective			3
Elective			3
Semester Hours			12
Total Semester Hours			119-121

## 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.yzu.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., Associate Professor

**Sharon A. Stringer**, Ph.D., Professor

**Ying Joy Tang**, Ph.D., Assistant Professor

### Lecturer

**Swati Sethi**, M.A., Lecturer

## Majors

- BA in Psychology (p. 361)
- BA in Psychology - Pre-Physical Therapy (p. 362)

## Minors

- General Psychology Minor (p. 363)
- Developmental Psychology Minor (p. 363)
- Psychology of Mental Health Minor (p. 363)

### 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 or ASST 1550.

**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>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Natural Sciences		7
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
<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
Total Semester Hours		120-122

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.

<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
Semester Hours		16
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours	17
<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
Semester Hours	16
<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
Semester Hours	16
<b>Year 4</b>	
<b>Fall</b>	
PSYC 37XX Elective	3
PSYC 37XX Elective	3
Minor 37XX/48XX course	3
Elective 37XX	3
Semester Hours	12
<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
Semester Hours	14
Total Semester Hours	122

## 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> 123-125	

## 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>		18

<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	3
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>		18

<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>		19

<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 question 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

**Daniel J. Van Dussen**, Ph.D., Professor

## Majors

- BA in Sociology (p. 371)
- BA in Anthropology (p. 369)
- BA in Gerontology (p. 370)
- BSAS in Long Term Care Administration (p. 373)

## Minors

- Sociology Minor (p. 375)
- Gerontology Minor (p. 375)
- Anthropology, General Minor (p. 374)
- Anthropology, Biological Minor (p. 374)
- Anthropology, Cultural Minor (p. 374)
- Anthropology, Forensic Minor (p. 374)
- Archaeology Minor (p. 374)

#### *Certificates*

- Certificate in Applied Gerontology (p. 375)

#### *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 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 function.

**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 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 AND FIELDWORK IN ANTHROPOLOGY

Internships are uncommon in Anthropology. However, fieldwork and other hands-on opportunities are available to all Anthropology majors. Anthropology majors may have the opportunity to apply their knowledge during an internship at the Mahoning County Coroner's Office or through fieldwork and laboratory analyses 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
<b>Electives</b> Must complete a minimum number of electives to meet the 120sh total graduation requirement		14
<b>Total Semester Hours</b>		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. 374)
- Archaeology (p. 374)
- Biological Anthropology (p. 374)
- Cultural Anthropology (p. 374)
- Forensic Anthropology (p. 374)

**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.ysu.edu/general-education/general-education-courses-knowledge-domain>

<b>Year 1</b>		S.H.
<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
Semester Hours		16
<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
Semester Hours		16
<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
Semester Hours		16

**Spring**

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
<b>Semester Hours</b>	<b>15</b>

**Year 3****Fall**

ANTH 3701 Social Statistics	4
ANTH 37XX+ Archaeology Elective	3
ANTH 37xx+ Cultural Anthropology elective	3
Course in Minor	3
<b>Semester Hours</b>	<b>13</b>

**Spring**

ANTH 4801 Anthropological Thought	3
ANTH 37xx+ Anthropology elective	3
37xx+ Course in Minor	3
37xx+ Course in Minor	3
Elective course	3
<b>Semester Hours</b>	<b>15</b>

**Year 4****Fall**

ANTH 4850 Research Methods	3
ANTH 37XX+ Anthropology Elective	3
37xx+ Course in Minor	3
Elective course	3
Elective course	3
<b>Semester Hours</b>	<b>15</b>

**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
<b>Semester Hours</b>	<b>14</b>
<b>Total Semester Hours</b>	<b>120</b>

<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		8
1550 Language		
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
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

**Year 1**

**Fall**

ENGL 1550	Writing 1 <sup>1</sup>	3	S.H.
GERO 1501	Introduction to Gerontology or PSYC 1560 or General Psychology	3	
General Education Natural Science elective		3	
Foreign Language 1550 <sup>1</sup>		4	
SOC 1500	Introduction to Sociology	3	
Semester Hours		16	

**Spring**

ENGL 1551	Writing 2 <sup>1</sup>	3	
PSYC 1560	General Psychology or GERO 1501 or Introduction to Gerontology	3	
CMST 1545	Communication Foundations	3	
Foreign Language 2600 <sup>1</sup>		4	
MATH 2623	Quantitative Reasoning	3	
Semester Hours		16	

**Year 2**

**Fall**

GERO 3703	Aging and Society (cross-listed) or SOC 3703 or Aging and Society	3	
General Education Arts and Humanities elective		3	
General Education Natural Science elective with lab		4	
GERO 37XX Gerontology Elective		3	
Elective		3	
Semester Hours		16	

**Spring**

FNUT 3720	Nutrition, Health, and Aging	3	
General Education Arts and Humanities elective		3	
Gerontology Elective		3	
Elective		3	
Elective		3	
Semester Hours		15	

**Year 3**

**Fall**

PSYC 3758	Lifespan Development	3	
GERO 3759	Physical Change and Aging	3	
Policy Elective		3	
Gerontology Elective		3	
Elective		3	
Semester Hours		15	

**Spring**

SOC 3701	Social Statistics	4	
GERO 3755	Theories of Gerontology	3	
GERO 3745	Sociology of Health, Illness, and Healthcare (cross-listed) or Sociology of Health, Illness, and Healthcare	3	

Elective	3	
Elective	3	
Semester Hours		16

**Year 4**

**Fall**

GERO 4850	Research Methods	3
GERO 4821	Internship in Gerontology	4
Elective		4
Elective		3
Semester Hours		14

**Spring**

SOC 4801	Later Life Issues	3
GERO 4851	Capstone in Gerontology	3
Elective		3
Elective		3
Semester Hours		12
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
<b>Major Requirements</b>	
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
<b>Sociology Electives</b>	
Select one Sociology course from each Sociology domain	18
Domain 1: Social Inequality <small>SOC 2640, 2690, 3700, 3743, 3798 (Topic: Race, Gender, Social Class, and Crime), or 3798 (Topic: Culture and People of China)</small>	
Domain 2: Social Institutions <small>SOC 3705, 3707, 3708, 3740, 3741, or 3745</small>	
Domain 3: Gender and the Family <small>SOC 2640, 3705, 3746, 3798 (Topic: Gender and Work), or 3798 (Topic: Sociology of Sexuality)</small>	
Domain 4: Deviance and Criminology <small>SOC 2601, 2630, 3731, 3733, 3735, 3736, or 3798 (Topic: Race, Gender, Social Class, and Crime)</small>	
Domain 5: Aging <small>SOC 3703, 3755, 3757, 3758, 3759, 3760, 3761, or 4801</small>	
Domain 6: Research and Internships <small>SOC 3720, 4800, 4810, or 4821</small>	
<b>Minor</b>	18
<b>Electives</b> <small>Must complete a minimum number of electives to meet the 120sh total graduation requirement</small>	20
<b>Total Semester Hours</b>	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.yu.edu/general-education/general-education-courses-knowledge-domain>).

<b>Year 1</b>	
<b>Fall</b>	
ENGL 1550 Writing 1 <sup>1</sup>	S.H. 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
<hr/>	
Semester Hours	16
<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
<hr/>	
Semester Hours	16

<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
<hr/>	
Semester Hours	16

<b>Spring</b>	
SOC 37XX Sociology elective	3
Course in Minor	3
General Education course	3
General Education course	3
General Education course	3
<hr/>	
Semester Hours	15

<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
<hr/>	
Semester Hours	15

<b>Spring</b>	
SOC 3701 Social Statistics	4
SOC 37XX Sociology elective	3
37xx Course in Minor	3
37xx Course in Minor	3
<hr/>	
Semester Hours	13

<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
<hr/>	
Semester Hours	14

<b>Spring</b>	
SOC 4860 Senior Thesis 2	3
Elective course	3
Elective course	3
Elective course	3
Elective course	3
<hr/>	
Semester Hours	15
<hr/>	
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 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.
- 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	
<b>Required courses for the Long Term Care Administration</b>		
Grade of "C" or better is required courses cannot be taken "CR/NC".		
<b>Psychology Coursework (6 s.h.)</b>		
PSYC 1560	General Psychology	3
PSYC 3757	Adult Development	3
<b>Support Coursework Sociology (4 s.h.)</b>		
SOC 3701	Social Statistics	4

<b>Gerontology Coursework (39 s.h.)</b>		
GERO 1501	Introduction to Gerontology	3
GERO 3703	Aging and Society	3
GERO 3757	Aging and Social Policy	3
or SCWK 3730	Social Services and the Aged	
GERO 3745	Sociology of Health, Illness, and Healthcare	3
SOC 3760	Sociology of Death and Dying	3
SOC 3759	Sociology of Dementia	3
SOC 4801	Later Life Issues	3
GERO 4821	Internship in Gerontology	3-15
GERO 4821	Internship in Gerontology	3-15
GERO 4850	Research Methods	3
GERO 4851	Capstone in Gerontology	3
<b>Business &amp; Technology Coursework (34 s.h.)</b>		
Students must have overall 2.5 GPA to register for upper division coursework in Williamson College of Business		
CSIS 1514	Business Computer Systems	3
BUS 1500	Exploring Business	3
ECON 2610	Principles 1: Microeconomics	3
ECON 4855	Health Economics	3
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
MGT 3705	Fundamentals of Occupational Safety	3
MGT 3715	Employee Relations and Workplace Ethics	3
MGT 3725	Fundamentals of Management	3
MGT 3750	Managing Individuals in Organizations	3
FIN 3720	Business Finance	3
<b>Communications Coursework (3 s.h.)</b>		
CMST 2655	Communication in Groups and Organizations	3
<b>Medical Professions, Nursing &amp; Allied Health Coursework (14 s.h.)</b>		
MATC 1501	Medical Terminology	3
FNUT 3720	Nutrition, Health, and Aging	3
NURS 3746	Geriatric Health	2
AHLT 4808	Environmental Health Concerns	3
PHIL 3725	Biomedical Ethics	3
Minimum of 124 s.h.		
<b>Year 1</b>		
<b>Fall</b>		<b>S.H.</b>
ENGL 1550	Writing 1	3
SOC 1500	Introduction to Sociology	3
or PSYC 1560	or General Psychology	
CSIS 1514	Business Computer Systems	3
BUS 1500	Exploring Business	3
MATC 1501	Medical Terminology	3
Semester Hours		15
<b>Spring</b>		
ENGL 1551	Writing 2	3
PSYC 1560	General Psychology	3
or SOC 1500	or Introduction to Sociology	
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
MATH 2623	Quantitative Reasoning	3
CMST 1545	Communication Foundations	3
Semester Hours		17



**Year 2****Fall**

ACCT 2602	Financial Accounting	3
CHEM 1500	Chemistry in Modern Living	3
GERO 3703 or SOC 3703	Aging and Society or Aging and Society	3
CMST 2655	Communication in Groups and Organizations	3
SOC 3758	Long-Term Care	3
NURS 3746	Geriatric Health	2
Semester Hours		17

**Spring**

ACCT 2603	Managerial Accounting	3
FNUT 3720	Nutrition, Health, and Aging	3
MGT 3705	Fundamentals of Occupational Safety	3
ECON 2610	Principles 1: Microeconomics	3
Arts and Humanities Elective (AH)		3
Arts and Humanities Elective (AH)		3
Semester Hours		18

**Year 3****Fall**

MGT 3725	Fundamentals of Management	3
PHIL 3725	Biomedical Ethics	3
CMST 3756	Interviewing	3
PSYC 3757	Adult Development	3
SCWK 3730 or GERO 3757	Social Services and the Aged or Aging and Social Policy	3
Semester Hours		15

**Spring**

MGT 3750	Managing Individuals in Organizations	3
FIN 3720	Business Finance	3
AHLT 4808	Environmental Health Concerns	3
SOC 3701 or PSYC 2617	Social Statistics or Research Methods for Psychology	4
SOC 3745	Sociology of Health, Illness, and Healthcare	3
Semester Hours		16

**Year 4****Fall**

GERO 4821	Internship in Gerontology	6
MGT 3715	Employee Relations and Workplace Ethics	3
GERO 4850	Research Methods	3
SOC 3759	Sociology of Dementia	3
Semester Hours		15

**Spring**

GERO 4821	Internship in Gerontology	6
GERO 4851	Capstone in Gerontology	3
SOC 4801	Later Life Issues	3
ECON 4855	Health Economics	3
Semester Hours		15
Total Semester Hours		128

**Minor in Biological 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 3704	Primates	3
ANTH 4882	Paleoanthropology	3
ANTH 4891	Advanced Topics in Biological Anthropology	3
Total Semester Hours		19

**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
Total Semester Hours		18

**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
Total Semester Hours		24

**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
Total Semester Hours		18

**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

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Total Semester Hours 18

<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

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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

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Total Semester Hours 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.yzu.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>		
ENGL 1560	Language, Ethnicity, and Gender	3
ENGL 2617	Women in Literature	3
FNLG 2660	Women in the Ancient World	3
PHLT 2692	Human Sexuality	3
SOC 2640	Gender in Society	3
SOC 2690	Identities and Differences	3
CHFM 3731	Individual and Family Development	3
CJFS 4851	Women and Justice	3
CMST 3750	Gender Communication	3
ENGL 3732	Images of Women	3
HIST 3726	History of Women in the United States	3
HIST 3787	History of Women in Europe	3
HMEC 5893	Work and Family	3
MGT 3755	Managing Workplace Diversity	3
MRCH 3730	Social Psychology of Clothing and Appearance	3
PSYC 3707	Psychology of Intimate Relationships	3
PSYC 3730	Psychology of Women	3
REL 3733	Women And the Bible	3
REL 3754	Feminism, Ecology and Religion	3
WMST 3750	Special Topics in Women's Studies	3
WMST 4850	Senior Research Project	3
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.

**Gen Ed:** Domestic Diversity, Social and Personal Awareness.

**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

*Tammy A. King, Acting Dean*

For more information, visit The Bitonte College of Health and Human Services (<http://www.yzu.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 accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND).
- The family and consumer sciences education programs are accredited by the Council for Accreditation of Educator Preparation (CAEP).
- The Bachelor of Science in Nursing program is accredited by the Commission on Collegiate Nursing Education (CNNE) and the Accreditation Commission for Education in Nursing (ACEN). The program is approved by the Ohio Board of Nursing (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)
- Early Childhood Associate/Pre-Kindergarten (AAS)
- Coordinated Program in Dietetics (BSAS)
- Didactic Program in Dietetics (BSAS)
- Family and Consumer Science Education (BSED)<sup>3</sup>
- Family and Consume Studies (BSAS)
- Hospitality Management Technology (AAS, BSAS)

- Merchandising: Fashion and Interiors (BSAS)
- Fashion (Minor)

## 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>:

- Adult-Gerontology Acute Care Nurse Practitioner (AG-ACNP)
- 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)
- Family Nurse Practitioner (Post Master's)

## Department of Physical Therapy

Physical Therapy (DPT)<sup>2</sup>

## Department of Social Work

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. 390)

### 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

**John M. Hazy**, Ph.D., 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

**Tammy A. King**, Ph.D., Professor

**Monica Merrill**, Ph.D., Assistant Professor



**Christian C. Onwudiwe**, Ph.D., Assistant Professor

**Richard Lee Rogers**, Ph.D., Associate Professor

**Patricia Bergum Wagner**, J.D., Associate Professor

**Robert E. Wardle**, M.S., Associate Professor

## Majors

- AAS in Criminal Justice, Law Enforcement Track (p. 383)
- AAS in Criminal Justice, Corrections Track (p. 381)
- AAS in Criminal Justice, Loss Prevention/Assets Protection Track (p. 382)
- BSAS in Criminal Justice, Law Enforcement Track (p. 386)
- BSAS in Criminal Justice, Corrections Track (p. 385)
- BSAS in Criminal Justice, Loss Prevention/Assets Protection Track (p. 389)
- BSAS in Criminal Justice, Legal Process Track (p. 388)
- BSAS in Criminal Justice, Generalist Track (p. 384)
- BSAS in Forensic Science (p. 390)

## Minors

- Minor in Criminal Justice - Corrections (p. 393)
- Minor in Criminal Behavior (p. 392)
- Minor in Criminal Justice Ethics (p. 393)
- Minor in Criminal Justice System (p. 393)
- Minor in Criminal/Legal Processes (p. 393)
- Minor in Forensic Science (p. 393)
- Minor in Juvenile Justice System (p. 393)
- Minor in Law Enforcement (p. 393)
- Minor in Loss Prevention and Assets Protection (p. 393)

## Certificates

- Certificate in Basic Peace Officer Training (p. 392)

### **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 senior capstone course. Portfolios and resumes prepared, assessment exam. Must be a Criminal Justice major or have permission of chairperson.

**Prereq.:** Senior standing or permission of chairperson.

**Gen Ed:** Capstone.

**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.

**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 4850H Special Topics in Criminal Justice Critical Incidents and Homeland Security 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 4852 Trace Evidence 3 s.h.**

Teaches search methods, recovery procedures, and laboratory analysis for hairs, fibers, and other types of trace evidence in criminal investigations and prosecutions. Emphasis is on major cases that hinged on trace evidence, and the legal and ethical future of trace evidence. Some laboratory exercises with microscopes are included.

**Prereq.:** CJFS 3714 or concurrent or permission from Chairperson.

**CJFS 4853 Forensic Firearms Examination 3 s.h.**

This course features both lecture and laboratory work on the forensic science involved in firearms examination, to include gun manufacturing, the physics of ballistics, gunpowder and gun primer residue analysis, serial number restoration, and shooting reconstruction. Legislation concerning handguns and other weapons in the US will also be covered.

**Prereq.:** CJFS 3714 or concurrent or permission from Chairperson.

**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)		
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 3719	Criminal Law	3
CJFS 3735	Crime and Delinquency	3
<b>Elective</b>		
3		
<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	
Total Semester Hours		60

## 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>		<b>3</b>
<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	
Total Semester Hours		60

## 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)		
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>		<b>3</b>
<b>Law Enforcement Track</b>		
12		
Select 12 s.h. from the following:		
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	

Total Semester Hours

60

## 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, 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
Total Semester Hours		24

- 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)		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>3</sup>		15
<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> <sup>2</sup>		
CJFS 37XX		3
CJFS 37XX		3
CJFS 48XX/58XX		3
CJFS 48XX/58XX		3
CJFS 4800 <sup>1</sup>		3
Total Semester Hours		120

<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.

### Year 1

Fall		S.H.
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
Semester Hours		14

### Spring

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
Semester Hours		16

### Year 2

Fall		S.H.
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
Semester Hours		15

### Spring

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
Semester Hours		15

### Year 3

Fall		S.H.
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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
<b>Spring</b>		
Elective		3
CJFS 3700 or higher-Level Elective		3
CJFS 3700 or higher-Level Elective		3
Elective		3
Elective		3
Semester Hours		15
Total Semester Hours		120

## 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, 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
Total Semester Hours		24

- 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
Total Semester Hours		12

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

### 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
<b>Elective or (Optional) Minor-must have 24 s.h. total</b>	
Select 24 s.h. of Minor or additional electives.	24

Corrections		
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.

**Year 1**

	S.H.
<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>

**Spring**

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>

**Year 2**

	S.H.
<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>

**Spring**

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>

**Year 3**

	S.H.
<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>

**Spring**

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>

**Year 4**

<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>

**Spring**

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>

## 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
CJFS 3740	Criminal Justice Information Systems	3
CJFS 5825	Criminal Procedures and Constitutional Issues	3
CJFS 4870	Law Enforcement Administration	3
Total Semester Hours		15

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
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>Electives or (Optional) Minor-must have 24 s.h. total</b>		
Select 24 s.h. of Minor or additional electives.		24
<b>Law Enforcement</b>		
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
Total Semester Hours		120

<sup>1</sup> Capstone course.

<sup>2</sup> Alternate option is to complete OPOTA.

Year 1		S.H.
<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
Semester Hours		14
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
<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.)		
Semester Hours		15
<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
Semester Hours		15
Total Semester Hours		120

## 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
Total Semester Hours		24

- 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
Total Semester Hours		12

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. <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>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
Total Semester Hours		120

<sup>1</sup> Capstone course.

<sup>2</sup> Alternate option is to complete OPOTA.

### Year 1

Fall		S.H.
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
Semester Hours		14
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
Total Semester Hours		120

## 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
Total Semester Hours		24

- 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
Total Semester Hours		15

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>		
<b>Core Competencies</b>		
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	
<b>Arts and Humanities</b>		
SOC 1500	Introduction to Sociology	3
CJFS 1500	Introduction to Criminal Justice	3
<b>Social and Personal Awareness</b>		
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>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
<b>Total Semester Hours</b>		<b>120</b>

<sup>1</sup> Capstone course.

<sup>2</sup> Alternate option is to complete OPOTA.

<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
<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>		
Core Competencies		
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 6		
Social Sciences		
CJFS 1500	Introduction to Criminal Justice	3
ANTH 1500	Introduction to Anthropology	3
Social and Personal Awareness 6		
<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
CHEM 3785 & 3785L	Biochemistry 1 and Biochemistry Laboratory	4
CHEM 3786	Biochemistry 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
<b>BIOLOGY (Select at least 13 s.h.)</b>		
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	4
BIOL 3703 & 3703L	Clinical Immunology and Clinical Immunology Laboratory	4
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	4
BIOL 3711	Cell Biology: Fine Structure	3
BIOL 3716	Molecular Microbiology 1: Nucleic Acids	4
BIOL 3730 & 3730L	Human Physiology and Human Physiology Laboratory	5
BIOL 4800 & 4800L	Bioinformatics and Bioinformatics Laboratory	4
BIOL 4839	Selected Topics in Physiology	1
CHEM 3785 & 3785L	Biochemistry 1 and Biochemistry Laboratory	4
CHEM 3786	Biochemistry 2	3
BIOL 4850	Problems in Biology	1-3
<b>OTHER OPTION, CHEMISTRY / BIOLOGY</b>		
BIOL 4890 & 4890L	Molecular Genetics and Molecular Genetics Laboratory	4
BIOL 5827	Gene Manipulation	2
CJFS 4850	Special Topics in Criminal Justice	3-5
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 3720R	Organic Chemistry Recitation 2	1
PHLT 3731	Drug Use and Abuse	3
PHLT 5810	Agents of Mass Casualty	3
PHLT 5812	Crisis Management in Public Health	3
<b>ANTHROPOLOGY (Select at least 16 s.h.)</b>		
ANTH 2600	Human Osteology	4
ANTH 3702	Archaeology	3
ANTH 3703	Biological Anthropology	3
ANTH 3778	Archaeological Techniques	1-9
ANTH 3779	Fieldwork in Historical and Industrial Sites Archaeology	3
ANTH 3780	Forensic Anthropology 1	4
ANTH 4800	Undergraduate Research	1-2
ANTH 4881	Forensic Anthropology 2	4
ANTH 4883	Case Studies in Forensic Anthropology	3
ANTH 4891	Advanced Topics in Biological Anthropology	3
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	4
GEOG 5812	Global Positioning Systems and GIScience	3

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.

Year 1		
Fall		
		S.H.
ENGL 1550	Writing 1	3
CJFS 1510	Survey of Forensic Sciences	3
CJFS 1500	Introduction to Criminal Justice	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
Arts and Humanities		3
Semester Hours		16
Spring		
ENGL 1551	Writing 2	3
CJFS 2602	Criminal Courts	3
ANTH 1500	Introduction to Anthropology	3
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
Social and Personal Awareness		3
Semester Hours		16
Year 2		
Fall		
CMST 1545	Communication Foundations	3
CJFS 3714	Forensic Science: Crime Scene Investigation	2
CJFS 3714L	Forensic Science: Crime Scene Investigation Laboratory	1
MATH 1571	Calculus 1	4
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
Semester Hours		14
Spring		
CJFS 3700	Forensic Fire and Explosives Investigation	3
CJFS 3716	Forensic Science Evidence Analysis	2
CJFS 3716L	Forensic Science Evidence Analysis Laboratory	1
MATH 1572	Calculus 2	4
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
Semester Hours		14
Year 3		
Fall		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
CJFS 4850	Special Topics in Criminal Justice	3
STAT 3717	Statistical Methods	4
Elective 3700-Level		5
Semester Hours		16
Spring		
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
Arts and Humanities		3
Elective 3700-Level		4
Semester Hours		16
Year 4		
Fall		
CJFS 4807	Criminal Justice Internship	6
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 will demonstrate knowledge on the influence of the CJ system at the subsystem levels (policing, courts, and corrections).
2. Students can analyze scientific situations, and apply the scientific method within the CJ judicial system.
3. Students can explain biology principles and how they relate to forensic science.
4. Students can explain chemistry principles and how they relate to forensic science.
5. Students can explain basic physics and math principles, and how they 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:		
CJFS 4851	Women and Justice	3
CJFS 5875	Juvenile Justice System	3
SOC 3744	Social Deviance	3
PSYC 3702	Abnormal Psychology	3
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:		
PHIL 1561	Technology and Human Values	3
PHIL 1565	Critical Thinking	3
PHIL 2635	Ethics of War and Peace	3
PHIL 4820	Seminar in Philosophy (relevant topic and instructor consent only)	3
PHIL 4870	Internship in Ethical Practice (1 s.h., must repeat 3 times)	3
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.		
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
Total Semester Hours		18

## 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
Total Semester Hours		18

## 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
Total Semester Hours		21

<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
Total Semester Hours		21

## 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
Total Semester Hours		24

## 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.yzu.edu/administrative-offices/distance-education/distance-education>)

You can contact the Office of Distance Education by e-mail at [distanceed@yzu.edu](mailto:distanceed@yzu.edu) or by phone at (330) 941-1516.

For more information, visit the **Department of Health Professions** (p. 394).

#### Chair

**Joseph J. Mistovich**, M.Ed., Professor, Chair

#### Professor

**Kelly Colwell**, Ed.D., Assistant Professor

**Debbie Juruaz**, D.D.S., Professor

**Diane P. Kandray**, Ed.D., 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

#### Lecturer

**Ronald K. Chordas**, Ph.D., Lecturer

**Ida Fusillo**, M.P.H., Senior Lecturer

**Susan E. Kearns**, M.S.N., Senior Lecturer

### Majors

- Allied Health Baccalaureate - Completion Program (p. 408)
- Medical Laboratory Technician (MLT-AAS) (p. 406)
- Medical Laboratory Science (MLS-BSAS) (p. 409)
- Public Health, Health Education/Health Promotion Track (p. 414)
- Public Health, Environmental Health Track (p. 411)
- Dental Hygiene (p. 415)
- Emergency Medical Services (p. 403)
- Medical Assisting Technology (p. 405)
- BS in Respiratory Care (p. 418)

### Certificate

- Health Information Systems (p. 424)

### Minors

- Minor in Community Health Planning and Evaluation (p. 424)
- Minor in Public Health (p. 425)
- Minor in Environmental Health and Safety (p. 424)

## 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.

### 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 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 5831 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 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, psychiatric 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 or 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 1568H Honors 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.

**Year 1****Summer**

	S.H.
BIOL 1545 Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
Semester Hours	5

**Fall**

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
Semester Hours	15

**Spring**

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
Semester Hours	14

**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
Semester Hours	10

**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 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)	
Semester Hours	14

**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
Semester Hours	15
Total Semester Hours	73

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.ysu.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		

**Year 1**

<b>Fall</b>		<b>S.H.</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
Semester Hours		19

**Spring**

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
Semester Hours		16

**Year 2**

<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
Semester Hours		18

**Spring**

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
Semester Hours		16

**Year 3****Fall**

MATC 2692	Medical Assisting Externship ( Offered Fall and Spring Semesters)	3
Semester Hours		3
Total Semester Hours		72

## 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.naacls.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
Total Semester Hours		7

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>		6
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
<b>Mathematics</b>		3
STAT 2625	Stat Lit and Crit Reasoning	
<b>General Education</b>		2
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	
Elective (3 s.h.)		3
<b>Science Requirements</b>		12
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>		44
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	
Total Semester Hours		70
<b>Year 1</b>		
<b>Fall</b>		<b>S.H.</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
Semester Hours		19
<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
Semester Hours		17
<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
Semester Hours		7
<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
Semester Hours		17
<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
Semester Hours		14
Total Semester Hours		74

<sup>1</sup> General education courses must fulfill them 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.

#### Minor (Optional) or Electives

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](http://www.naacls.org), [info@naacls.org](mailto:info@naacls.org)

COURSE	TITLE	S.H.
<b>Writing</b> 6		
ENGL 1550	Writing 1	
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	
Total Semester Hours		125
<b>Year 1</b>		
<b>Fall</b> S.H.		
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
Semester Hours		16
<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
Semester Hours		14
<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
Semester Hours		18
<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
Semester Hours		15
<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
Semester Hours		7

**Year 3****Fall**

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
Semester Hours		11

**Spring**

MLS 3703 & 3703L	Clinical Immunology and Clinical Immunology Laboratory	4
General Education Requirement <sup>1</sup>		3
Semester Hours		7

**Summer**

AHLT 4806	Research Methods	3
MLS 4804	Miscellaneous Clinical Experience	4
MLS 4804L	Miscellaneous Clinical Practice	2
Semester Hours		9

**Year 4****Fall**

MLS 4801	Advanced Hematology	4
MLS 4801L	Advanced Hematology Clinical Practice	3
MLS 4802	Advanced Immunohematology	4
MLS 4802L	Advanced Immunohematology Clinical Practice	3
Semester Hours		14

**Spring**

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
Semester Hours		14
Total Semester Hours		125

<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.
Writing		6
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
Speech		3
CMST 1545	Communication Foundations	
Math/Statistics		6
STAT 2625	Stat Lit and Crit Reasoning	
STAT 2601	Introductory Statistics	
Arts & Humanities (2 courses)		6
Social Sciences (2 courses)		6
SPA (2 courses)		6
Intro to Online		3
AHLT 1500	Introduction to Online Learning in Health Professions	
<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

## 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.

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/sanitaricians-in-training. Sanitaricians 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>		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
Arts and Humanities		6
PHIL 1560	Introduction to Philosophy (or)	3
OR		
PHIL 2625	Introduction to Professional Ethics	3
Natural Sciences		6
BIOL 2601	General Biology: Molecules and Cells	4
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.

<b>Year 1</b>		
<b>Fall</b>		
	<b>S.H.</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
Semester Hours		15

<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
Semester Hours		17

<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
Semester Hours		16

<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 or PHIL 2625	Introduction to Philosophy or Introduction to Professional Ethics	3
Semester Hours		16

<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
Semester Hours		16

<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
Semester Hours		15

<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
Semester Hours		12

<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
Semester Hours		15
Total Semester Hours		122

• 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
AND		
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.

**Year 1**

Fall		S.H.
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
Semester Hours		15

**Spring**

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
Semester Hours		15

**Year 2**

Fall		
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
Semester Hours		17

**Spring**

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
Semester Hours		16

**Year 3**

Fall		
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
Semester Hours		16

**Spring**

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
Semester Hours		15

**Year 4****Fall**

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
Semester Hours		12

**Spring**

PHLT 4891	Public Health Internship	8
PHLT 4899	Public Health Senior Seminar	3
PHLT 5804	Multicultural Health	3
Semester Hours		14
Total Semester Hours		120

- 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.yasu.edu/academics/bitonte-college-health-and-human-services/dental-hygiene-major>).

## Pre-Dental Hygiene Courses

### Year 1

Fall		S.H.
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
Semester Hours		13

### 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
Semester Hours		15

### Year 2

Fall		
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
Semester Hours		15
Total Semester Hours		43

## 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>		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Mathematics Requirement		
MATH 2623 or STAT 2625	Quantitative Reasoning Stat Lit and Crit Reasoning	3-4
Arts and Humanities		
PHIL 2625	Introduction to Professional Ethics	6
Arts and Humanities Elective		
Natural Sciences		
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 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	3
Required Support Courses		
BIOL 1560	Microbiology for the Health Professions	3
BIOL 1560L or MLT 2687L	Microbiology Laboratory for Health Professions Microbiology for Health Care Laboratory	6
Social Science		
PSYC 1560	General Psychology	6
SOC 1500	Introduction to Sociology	6
Social and Personal Awareness		
Social and Personal Awareness		
Social and Personal Awareness		
First Year Experience		
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
<b>Major Requirements</b>		
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		124-125

**Year 1**

<b>Fall</b>		<b>S.H.</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
Semester Hours		13

**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**

<b>Fall</b>		
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
Semester Hours		16

**Spring**

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
Semester Hours		14
Total Semester Hours		124-125

## 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

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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/department-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 ([www.coarc.com](http://www.coarc.com) (<https://www.coarc.com>)). To view CoARC Program outcomes please visit CoARC Outcomes Data (<https://www.coarc.com/Students/Programmatic-Outcome-Data.aspx>).

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(which may include an area of clinical specialization).

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).

COURSE	TITLE	S.H.
<b>Pre-Respiratory Courses</b>		
BIOL 1545	Allied Health Anatomy and Physiology	5

BIOL 1545L	Allied Health Anatomy and Physiology Laboratory (BIOL 1545/1545L satisfies a NS GER Knowledge Domain)	0
CHEM 1510	Chemistry for Allied Health Sciences	4
CHEM 1510L	Chemistry for the Allied Health Sciences Laboratory (CHEM 1510/1510L satisfies a NS GER Knowledge Domain)	0
MATC 1501	Medical Terminology	3
MATH 2623	Quantitative Reasoning (MATH 2623 satisfies the MATH GER for University Basic Skills)	3
<b>University Basic Skills</b>		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
CMST 1545	Communication Foundations	3
<b>GER Knowledge Domains</b>		
BIOL 1560	Microbiology for the Health Professions	2
BIOL 1560L	Microbiology Laboratory for Health Professions	1
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
PHIL 2625	Introduction to Professional Ethics	3
SPA Domain		3
AH Domain		3
PHLT 1568	Healthy Lifestyles	3
or PHLT 1531	Fundamentals of Public Health	
<b>Respiratory Care Courses</b>		
RESC 1529	Respiratory Care Orientation	2
RESC 1531	Respiratory Care Essentials	3
MATC 2605	Introduction to Pharmacology	3
RESC 1503	Respiratory Procedures 1	4
RESC 1520	Respiratory Care Assessment 1	3
PHYS 1506	Physics for Health Care	3
AHLT 3705	Pharmacotherapeutics	3
RESC 2620	Respiratory Assessment 2	3
RESC 2621	Cardiopulmonary Disease	4
RESC 3706	Respiratory Procedures 2	3
RESC 3720	Mechanical Ventilation 1	3
AHLT 4806	Research Methods	3
AHLT 5840	Comparative Health Systems	3
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
RESC 3740	Clinical Practice 2	4
RESC 3750	Pulmonary Rehabilitation	2
RESC 3765	Advanced Respiratory Care Diagnostics	3
RESC 3741	Clinical Practice 3	3
RESC 4831	Pulmonary Care Management	3
AHLT 4812	Advanced Cardiac Life Support	3
RESC 4838	Respiratory Seminar 1	1
RESC 4835	Clinical Practice 4	3
RESC 4842	Respiratory Seminar 2	1
AHLT 4820	Directed Research	3
<b>Sleep Diagnostic Option</b>		
RESC 4846	Sleep Diagnostics 1	3
RESC 4847	Sleep Clinics 1	1

RESC 4848	Sleep Diagnostics 2	3
RESC 4849	Sleep Clinics 2	1

## Bachelor of Science Respiratory Care (BSRC) Curriculum

### Year 1

Fall		S.H.
BIOL 1545	Allied Health Anatomy and Physiology	5
MATC 1501	Medical Terminology	3
MATH 2623	Quantitative Reasoning	3
ENGL 1550	Writing 1	3
Semester Hours		14

### Spring

CMST 1545	Communication Foundations	3
CHEM 1510	Chemistry for Allied Health Sciences	4
CHEM 1510L	Chemistry for the Allied Health Sciences Laboratory	0
ENGL 1551	Writing 2	3
SOC 1500	Introduction to Sociology	3
PHLT 1568 or PHLT 1531	Healthy Lifestyles or Fundamentals of Public Health	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
Semester Hours		18

### Year 2

Fall		S.H.
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
Semester Hours		14

### Spring

RESC 1503	Respiratory Procedures 1	4
RESC 1520	Respiratory Care Assessment 1	3
PSYC 1560	General Psychology	3
AHLT 3705	Pharmacotherapeutics	3
Semester Hours		13

### Summer

RESC 2620	Respiratory Assessment 2	3
RESC 2621	Cardiopulmonary Disease	4
Semester Hours		7

### Year 3

Fall		S.H.
RESC 3706	Respiratory Procedures 2	3
RESC 3720	Mechanical Ventilation 1	3
AHLT 4806	Research Methods	3
AHLT 5840	Comparative Health Systems	3
Semester Hours		12

### Spring

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
Semester Hours		14

### Summer

RESC 3740	Clinical Practice 2	4
RESC 3750	Pulmonary Rehabilitation	2
Semester Hours		6

### Year 4

Fall		S.H.
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
Semester Hours		17

### Spring

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
Semester Hours		17

Total Semester Hours 132

<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.

## 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).

# Bachelor of Science in Respiratory Care in Respiratory Care Completion Track

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 s.h.)	
	Communications (3 s.h.)	
	Mathematics (3 s.h.)	
	Natural Sciences (6 s.h.)	
	Arts & Humanities (6 s.h.)	
	Social Sciences (6 s.h.)	
	Social and Personal Awareness (6 s.h.)	
<b>Associate Degree Respiratory Care Courses</b>		
Required Core Upper Division Courses (36 s.h.)		
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
Electives (if Additional Upper Division Hours Are Needed)		
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, 5800 level) Hours Required 48 s.h.		

For more information, please visit the Distance Education (<http://cms.ysu.edu/administrative-offices/distance-education/online-bachelor-science-respiratory-care-completion>) website.

# Bachelor of Science in Respiratory Care in Respiratory Care with Advanced Placement Option to Master of Respiratory Care

**Respiratory Care Program Director:**

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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/department-health-professions/bs-respiratory-care>) for more information.

The advanced placement option allows the undergraduate BSRC student to take up to 9 semester hours of graduate credit that can be applied to the Master of Respiratory Care program. Upon completion of the BSRC, the student must apply to and be accepted into the Graduate School and the Master of Respiratory Care Program in order to apply the graduate credits earned during the BSRC program. To be accepted into the BSRC Advanced Placement option, the student must meet the following criteria:

1. Junior standing with an overall GPA of a minimum of 3.2; or,
2. Junior standing in BSRC Completion Program and have completed 15 semester hours of required core upper division courses and have an overall minimum GPA of 3.2

Once accepted into the BSRC Advanced Placement Option, the student must maintain a GPA of 3.0 to continue to take graduate level courses.

## 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 ([www.coarc.com](http://www.coarc.com) (<https://www.coarc.com>)). To view CoARC Program outcomes please visit CoARC Outcomes Data (<https://www.coarc.com/Students/Programmatic-Outcome-Data.aspx>).

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 (which may include an area of clinical specialization).

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).

COURSE	TITLE	S.H.
<b>Pre-Respiratory Courses</b>		
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
CHEM 1510	Chemistry for Allied Health Sciences	4
CHEM 1510L	Chemistry for the Allied Health Sciences Laboratory	0
MATC 1501	Medical Terminology	3
MATH 2623	Quantitative Reasoning	3
<b>University Basic Skills</b>		
MATH 2623 is part of the Pre-Respiratory Care course requirements.		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
CMST 1545	Communication Foundations	3
<b>GER Knowledge Domains</b>		
BIOL 1545/1545L and CHEM 1510/1510L satisfies the NS Domain requirements.		
BIOL 1560	Microbiology for the Health Professions	2
BIOL 1560L	Microbiology Laboratory for Health Professions	1
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
PHIL 2625	Introduction to Professional Ethics	3
SPA Domain		3
AH Domain		3
PHLT 1568 or PHLT 1531	Healthy Lifestyles or Fundamentals of Public Health	3
<b>Respiratory Care Courses</b>		
RESC 1529	Respiratory Care Orientation	2
RESC 1531	Respiratory Care Essentials	3
MATC 2605	Introduction to Pharmacology	3
RESC 1503	Respiratory Procedures 1	4
RESC 1520	Respiratory Care Assessment 1	3
PHYS 1506	Physics for Health Care	3
AHLT 3705	Pharmacotherapeutics	3

RESC 2620	Respiratory Assessment 2	3
RESC 2621	Cardiopulmonary Disease	4
RESC 3706	Respiratory Procedures 2	3
RESC 3720	Mechanical Ventilation 1	3
AHLT 4806	Research Methods	3
RESC 2699	Clinical Practice 1	1
RESC 3708	Respiratory Clinical Specialties	3
AHLT 5840	Comparative Health Systems	3
RESC 3709	Neonatal/Pediatric Respiratory Care	4
RESC 3725	Mechanical Ventilation 2	3
RESC 3731	Respiratory Care Management	3
RESC 3740	Clinical Practice 2	4
RESC 3750	Pulmonary Rehabilitation	2
RESC 3765	Advanced Respiratory Care Diagnostics	3
RESC 3741	Clinical Practice 3	3
RESC 4831	Pulmonary Care Management	3
AHLT 4812	Advanced Cardiac Life Support	3
RESC 4838	Respiratory Seminar 1	1
RESC 4835	Clinical Practice 4	3
RESC 4842	Respiratory Seminar 2	1
AHLT 4820	Directed Research	3
<b>BSRC to MRC Advanced Placement Option</b>		
RESC 6900	The Respiratory Care Profession	3
RESC 6920	Technology Applications for Health and Human Services	3

\*AHLT 5840 Comparative Health Systems must be taken for graduate credit

## Bachelor of Science Respiratory Care (BSRC) Curriculum

### Year 1

Fall	S.H.	
BIOL 1545	Allied Health Anatomy and Physiology	5
MATC 1501	Medical Terminology	3
MATH 2623	Quantitative Reasoning	3
ENGL 1550	Writing 1	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2

Semester Hours 16

### Spring

CMST 1545	Communication Foundations	3
CHEM 1510	Chemistry for Allied Health Sciences	4
CHEM 1510L	Chemistry for the Allied Health Sciences Laboratory	0
ENGL 1551	Writing 2	3
SOC 1500	Introduction to Sociology	3
PHLT 1568 or PHLT 1531	Healthy Lifestyles or Fundamentals of Public Health	3

Semester Hours 16

### Year 2

Fall	S.H.	
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 or BIOL 1560L	Microbiology for Health Care Laboratory or Microbiology Laboratory for Health Professions	1

PHIL 2625	Introduction to Professional Ethics	3
Semester Hours		14
<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
Semester Hours		13
<b>Summer</b>		
RESC 2620	Respiratory Assessment 2	3
RESC 2621	Cardiopulmonary Disease	4
Semester Hours		7
<b>Year 3</b>		
<b>Fall</b>		
RESC 3706	Respiratory Procedures 2	3
RESC 3720	Mechanical Ventilation 1	3
AHLT 4806	Research Methods	3
Elective Arts and Humanities		3
Semester Hours		12
<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
Semester Hours		14
<b>Summer</b>		
RESC 3740	Clinical Practice 2	4
RESC 3750	Pulmonary Rehabilitation	2
Semester Hours		6
<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
AHLT 5840	Comparative Health Systems (Must be taken for graduate credit)	3
Semester Hours		16
<b>Spring</b>		
RESC 4835	Clinical Practice 4	3
RESC 4842	Respiratory Seminar 2	1
AHLT 4820	Directed Research	3
Social & Personal Awareness Elective		3
RESC 6900	The Respiratory Care Profession	3
RESC 6920	Technology Applications for Health and Human Services	3
Semester Hours		16
Total Semester Hours		130

- 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).

## Bachelor of Science in Respiratory Care in Respiratory Care Completion Track with Advanced Placement Option to Master of Respiratory Care

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.

The advanced placement option allows the undergraduate BSRC Completion student to take up to 9 semester hours of graduate credit that can be applied to the Master of Respiratory Care program. Upon completion of the BSRC, the student must apply to and be accepted into the Graduate School and the Master of Respiratory Care Program in order to apply the graduate credits earned during the BSRC program. To be accepted into the BSRC Advanced Placement option, the student must be Junior standing in BSRC Completion Program and have completed 15 semester hours of required core upper division courses and have an overall minimum GPA of 3.2.

Once accepted into the BSRC Advanced Placement Option, the student must maintain a GPA of 3.0 to continue to take graduate level courses.

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).

## Learning Outcomes

The student learning outcomes for the major in Respiratory Care are as follows:



- 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.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
	Writing (6 s.h.)	
	Communications (3 s.h.)	
	Mathematics (3 s.h.)	
	Natural Sciences (6 s.h.)	
	Arts & Humanities (6 s.h.)	
	Social Sciences (6 s.h.)	
	Social and Personal Awareness (6 s.h.)	
<b>Associate Degree Respiratory Care Courses</b>		
Required Core Upper Division Courses (36 s.h.)		
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
AHLT 3705	Pharmacotherapeutics	3
AHLT 4806	Research Methods	3
AHLT 4820	Directed Research	3
<b>BSRC to MRC Advanced Placement Option</b>		
AHLT 5840	Comparative Health Systems ((Must be taken for graduate credit))	3
RESC 6900	The Respiratory Care Profession	3
RESC 6920	Technology Applications for Health and Human Services	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, 5800 level) Hours Required 48 s.h.		

For more information, please visit the Distance Education (<http://cms.ysu.edu/administrative-offices/distance-education/online-bachelor-science-respiratory-care-completion>) website.

## 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	3
<b>Select one of the following courses</b>		
CSIS 1525	Survey of Modern Operating Systems	3-4
CSIS 2605	Fundamentals of Programming and Problem- Solving 2	3-4
CSIS 2610	Programming and Problem-Solving	3-4
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
Total Minor Hours		20 sh

## 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
Total Semester Hours		21

## 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	Healthy Lifestyles	3
or PHLT 1531	Fundamentals of Public Health	
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
Total Semester Hours		19

## Department of Human Ecology

(330) 941-3344

The Department of Human Ecology offers ten 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

- Didactic Program in Dietetics
- Coordinated Program in Dietetics
- Family and Consumer Studies
- Family and Consumer Sciences Instructor\*
- Merchandising: Fashion and Interiors
- Hospitality Management

Baccalaureate programs each lead to the Bachelor of Science in Applied Science degree.

\*The bachelor's program for Family and Consumer Sciences Instructor, leads to the Bachelor of Science in Education degree with eligibility for teaching field licensure in Family and Consumer Sciences.

Curriculum sheets for all programs are available at the Human Ecology department office in 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

**Jeanine L. Mincher**, Ph.D., Associate Professor, Chair

### Professor

**Priscilla N. Gitimu**, Ph.D., Associate Professor

**Ju Yup Lee**, Ph.D., Assistant Professor

**Patrick O'Leary**, Ph.D., Associate Professor

**Rachael J. Pohle-Krauz**, Ph.D., Professor

**Zara C. Rowlands**, Ph.D., Professor

**Tacibaht Turel**, Ph.D., Associate Professor

**Abel Waithaka**, Ph.D., Associate Professor

### Lecturer

**Amy Raabe**, M.S., Lecturer

**Mark Zetts**, M.B.A., Senior Lecturer

## Majors

- BSAS in Family and Consumer Studies, Family Studies Option (p. 435)
- BSAS in Family and Consumer Studies, Consumer Studies Option (p. 433)
- BSAS in Family and Consumer Studies, FCS Instructor Option (p. 436)
- AAS in D (p. 436)ietetic Technician (p. 437)
- BSAS in D (p. 437)idactic Program in Dietetics (p. 442)
- BSAS in C (p. 442)ordinated Program in Dietetics (Registration Eligible (p. 440)
- AAS in E (p. 440)arly Childhood-Pre-K (p. 439)
- AAS in Hospitality Management, Restaurant and Food Service Management (p. 432)
- AAS in Hospitality Management, Hotel and Lodging Management (p. 431)
- AAS in Hospitality Management, Event Management (p. 430)
- BSAS in H (p. 430)ospitality Management (p. 444)
- BSAS in (p. 444)Merchandising: Fashion and Interiors (p. 445)

## Minors

- Minor in Fashion (p. 447)

## 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

**HMG 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.:** FNUT 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 CHFM 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
HMGY 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
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>Event Management</b>		
FNUT 2612 & 2612L	Food Systems: Operation, Production, and Service and Food Systems: Operations, Production, and Service Laboratory	5
HMG 4846	Event Management	3
60 s.h. required for the degree - select elective(s)		2
Total Semester Hours		60

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.

#### Year 1

Fall		S.H.
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
Semester Hours		17

#### Spring

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
Semester Hours		14

#### Year 2

Fall		
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
Semester Hours		15

#### Spring

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
Semester Hours		14
Total Semester Hours		60

## 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

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 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	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	
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 ACCT, MGT, and MKTG courses.

<b>Year 1</b>		<b>S.H.</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
Semester Hours		17
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		13
Total Semester Hours		60

## 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		
HMGT 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
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>Restaurant and Foodservice Management</b>		
FNUT 2612 & 2612L	Food Systems: Operation, Production, and Service and Food Systems: Operations, Production, and Service Laboratory	5
HMGT 3725	Food and Beverage Management	3
Total Semester Hours		60

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.

<b>Year 1</b>		
<b>Fall</b>		
		S.H.
HMGT 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
Semester Hours		17
<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
Semester Hours		15
<b>Year 2</b>		
<b>Fall</b>		
HMGT 2603	Hospitality Managerial Accounting 1	4
HMGT 3719	Facilities Management	4
HMGT 3745	Hospitality Marketing and Sales	4
Natural Science Elective		4
Semester Hours		16
<b>Spring</b>		
CMST 1545	Communication Foundations	3
HMGT 3725	Food and Beverage Management	3
HMGT 2691	Hospitality Cooperative Work Experience	3
Social Science Elective		3
Semester Hours		12
Total Semester Hours		60

## Bachelor of Science in Applied Science in Family and Consumer Studies, Consumer Studies Track

Dr. Abel Waitbaka  
 Program Coordinator  
 330-941-2635  
 agwaitbaka@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 Waitbaka or visit the Department of Human Ecology in Cushwa 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
Total Semester Hours		120

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

<b>Year 1</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	S.H. 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
Semester Hours		15
<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
Semester Hours		16

<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
Semester Hours		16

<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
Semester Hours		15

<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
Semester Hours		15

<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
Semester Hours		15

<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
Semester Hours		14

<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
Semester Hours		14
Total Semester Hours		120

## 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 Waitbaka  
 Program Coordinator  
 (330) 941-2635  
 agwaitbaka@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 an 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. Waitbaka.

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	
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### Major Requirements

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

### Family Studies Option

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

May include course with CHFM, FNUT, HMEC, MRCH or HMG T prefix if pre-requisites are met		
Minor		18
Electives to meet 120 total hours (6 s.h.)		6
Total Semester Hours		119

### Year 1

Fall	S.H.	
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
Semester Hours		15

### Spring

ENGL 1551	Writing 2	3
FNUT 1551	Normal Nutrition	3
SOC 1500	Introduction to Sociology	3
Natural Science + Lab		4
Department Elective		3
Semester Hours		16

### Year 2

#### Fall

PHLT 2692	Human Sexuality	3
MATH 2623	Quantitative Reasoning	3
Arts and Humanities Elective		3
Department Elective		3
Natural Science Elective		3
Semester Hours		15

#### Spring

ECON 2610	Principles 1: Microeconomics	3
or ECON 1501	or Economics in Action	
Arts and Humanities Elective		3
PSYC 3755	Child Development	3
Department Elective		3

Minor Course		3
Semester Hours		15
<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
Semester Hours		17
<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
Semester Hours		14
<b>Year 4</b>		
<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
Semester Hours		14
<b>Spring</b>		
HMEC 4836	Internship	3
HMEC 4852	Family Resource Management	3
Minor Course		3
University Elective		3
HMEC 4877	Research Capstone	2
Semester Hours		14
Total Semester Hours		120

## 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 Waitaha, Program Coordinator  
(330) 941-2635  
agwaitaha@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. Waitaha.

COURSE	TITLE	S.H.
General Education Requirements		
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.

Year 1	S.H.	
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
Semester Hours		28
<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
Semester Hours		29
<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
Semester Hours		33
<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
Semester Hours		30
Total Semester Hours		120

## 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 Cushman 3325 or contact Mrs. Amy Raabe at 330-941-1823 or [asraabe@ysu.edu](mailto: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.

**Year 1**

Fall	S.H.	
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
Semester Hours		15

**Spring**

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
Semester Hours		17

**Summer**

BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3
CMST 1545	Communication Foundations	3
Semester Hours		6

**Year 2**

Fall	S.H.	
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
Semester Hours		14
<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
Semester Hours		13
<b>Summer</b>		
FNUT 2628	Practicum in Dietetic Technology	3
Arts & Humanities Elective		
Semester Hours		3
Total Semester Hours		68

## 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
<b>Major Requirements</b>		
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
Total Semester Hours		63

### Year 1

Fall	S.H.	
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
Semester Hours		15

### Spring

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
Semester Hours		15

### Summer

CMST 1545	Communication Foundations <sup>2</sup>	3
Arts and Humanities Elective		3
Semester Hours		6

### Year 2

Fall	S.H.	
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
Semester Hours		15
<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
Semester Hours		12
Total Semester Hours		63

<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.yosu.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	Sociology of Health, Illness, and Healthcare	3
or GERO 3703	Aging and Society	
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	Elementary Accounting	3
or HMG 2603	Hospitality Managerial Accounting 1	
COUN 2651	Foundations of Helping Skills for Human Ecology Professionals	2
or COUN 2650	Foundations of Helping Skills for Allied Health Professionals	
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 3735	Nutritional Biochemistry (S)	2
FNUT 4872	Maternal and Child Nutrition	2	Semester Hours		17
FNUT 4872L	Maternal and Child Nutrition Laboratory	2	<b>Year 3</b>		
FNUT 4873	Nutrition and Aging	2	<b>Fall</b>		
FNUT 4873L	Nutrition and Aging Laboratory	3	CHFM 3731	Individual and Family Development (F,S,X)	3
FNUT 4874	Community Nutrition and Wellness	3	FNUT 3759	Advanced Nutrition (F)	3
FNUT 4874L	Community Nutrition and Wellness Laboratory	3	FNUT 3760	Medical Nutrition Therapy 2 (F)	3
FNUT 4885	Practicum in Dietetics	4	FNUT 3760R	Medical Nutrition Therapy 2 Laboratory Recitation (F)	2
FNUT 5862	Food and Culture	2	FNUT 3760L	Medical Nutrition Therapy 2 Laboratory (F)	2
FNUT 5862L	Food and Cultures Laboratory	1	FNUT 4802	Research Methods in Dietetics (F)	2
<b>Year 1</b>			Semester Hours		
<b>Fall</b>			15		
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy 1 Laboratory for Health Professions	4	<b>Spring</b>		
CHEM 1505 & 1505L	Allied Health Chemistry 1 and Allied Health Chemistry 1 Laboratory	3	MGT 3725	Fundamentals of Management	3
ENGL 1550	Writing 1	3	FNUT 3761	Science of Nutrition in Exercise (S)	3
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2	FNUT 4802L	Research Methods in Dietetics Laboratory (S)	1
HMEC 1550	Human Ecology Professions (F,S,X)	1	FNUT 4860	Medical Nutrition Therapy 3 (S)	3
SOC 1500	Introduction to Sociology	3	FNUT 4860L	Medical Nutrition Therapy 3 Lab (S)	3
Semester Hours			16	FNUT 5862 & 5862L	Food and Culture and Food and Cultures Laboratory (S)
<b>Spring</b>			Semester Hours		
CHEM 1506 & 1506L	Allied Health Chemistry 2 and Allied Health Chemistry 2 Laboratory	3	16		
FNUT 1512	Food Safety and Sanitation	1	<b>Year 4</b>		
ENGL 1551	Writing 2	3	<b>Fall</b>		
FNUT 1551	Normal Nutrition (F,S,X)	3	FNUT 4858	Food Service Systems Management (F)	4
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4	FNUT 4858L	Food Systems Management Laboratory (F)	3
PSYC 1560	General Psychology	3	FNUT 4873	Nutrition and Aging (F)	2
Semester Hours			17	FNUT 4873L	Nutrition and Aging Laboratory (F)
<b>Year 2</b>			3		
<b>Fall</b>			3		
CMST 1545	Communication Foundations	3	SOC 3745 or GERO 3703	Sociology of Health, Illness, and Healthcare or Aging and Society	3
FNUT 1553	Food Science and Management Principles (F,S)	3	Semester Hours		
FNUT 1553L	Food Science and Management Principles Laboratory (F,S)	1	15		
MATH 2623 or STAT 2625	Quantitative Reasoning or Stat Lit and Crit Reasoning	3	<b>Spring</b>		
COUN 2651	Foundations of Helping Skills for Human Ecology Professionals (F)	2	FNUT 4810	Experimental Foods (S)	2
FNUT 2652L	Nutrition Assessment Laboratory (F,S)	1	FNUT 4810L	Experimental Foods Laboratory (S)	1
AH Elective		3	FNUT 4874	Community Nutrition and Wellness (F)	3
Semester Hours			16	FNUT 4874L	Community Nutrition and Wellness Laboratory (F)
<b>Spring</b>			3		
BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3	FNUT 4872	Maternal and Child Nutrition (S)	2
ACCT 2602	Financial Accounting	3	FNUT 4872L	Maternal and Child Nutrition Laboratory (S)	2
FNUT 2603	Medical Nutrition Therapy 1 (F,S)	3	SOC 3745 or SOC 3703	Sociology of Health, Illness, and Healthcare or Aging and Society	3
FNUT 2603L	Medical Nutrition Therapy 1 Lab (F,S)	1	Semester Hours		
FNUT 2612 & 2612L	Food Systems: Operation, Production, and Service and Food Systems: Operations, Production, and Service Laboratory (F,S)	5	16		
Semester Hours			4		
16			4		
16			Total Semester Hours		
16			132		

F – Offered in the fall semester S – Offered in the spring semester X – Offered in the summer semester

## Learning Outcomes

At the completion of the coordinated program in dietetics, graduates will be able to:

- Communicate effectively.
- Effectively integrate biochemical concepts into dietetics practice.
- Effectively integrate physiological concepts into dietetics practice.
- Effectively apply theory from the social sciences to dietetics practice.
- Effectively present results of research study.

- Effectively apply concepts from food, nutrition, management, and health care systems to dietetics practice.
- Practice effectively as members of an interdisciplinary team.
- Demonstrate competency in medical nutrition therapy.
- Demonstrate competency in foodservice management practice.
- Demonstrate competency in community nutrition practice.

## Bachelor of Science in Applied Science in Food and Nutrition Didactic Program in Dietetics

Dr. Zara Rowlands, Program Coordinator  
(330) 941-2021  
zcshah@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 zcshah@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		
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

**Year 1**

<b>Fall</b>		<b>S.H.</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

**Spring**

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

**Year 2**

<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

**Spring**

CMST 1545	Communication Foundations (F,S,X)	3
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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
FNUT 3735	Nutritional Biochemistry (S)	2
Semester Hours		15

**Year 3**

**Fall**

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

**Spring**

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**

**Fall**

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

**Spring**

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 Humanities		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
HMGT 1500	Introduction to Hospitality Industry	3
FNUT 1553 & 1553L	Food Science and Management Principles and Food Science and Management Principles Laboratory	4
HMGT 2603	Hospitality Managerial Accounting 1	4
	or ACCT 1503 Elementary Accounting	
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
HMGT 2622	Hotel Management	3
HMGT 2691	Hospitality Cooperative Work Experience	3
HMGT 3719	Facilities Management	4
CHFM 3731	Individual and Family Development	3
HMGT 3745	Hospitality Marketing and Sales	4
HMGT 4804	Hospitality Industry Law and Ethics	3
HMEC 4836	Internship	4
HMEC 4890	Communication of Contemporary Issues	3
HMGT 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, HMGT, FNUT, HMEC or MRCH coursework.		
Select 6 s.h. upper-division electives.		
B. Minor (at least 18 s.h.)		
Total Semester Hours		120
<b>Year 1</b>		
<b>Fall</b>		<b>S.H.</b>
ENGL 1550	Writing 1	3
HMGT 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
Semester Hours		16
<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
Semester Hours		15
<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
HMGT 2603	Hospitality Managerial Accounting 1	4
MGT 2604	Legal Environment of Business 1	3
ECON 2610	Principles 1: Microeconomics	3
Semester Hours		16
<b>Spring</b>		
ECON 2630	Principles 2: Macroeconomics	3
Natural Science + Lab		4
PHIL 2625	Introduction to Professional Ethics	3
	or PHIL 2628 or Business Ethics	
HMGT 2691	Hospitality Cooperative Work Experience	3

HMG 2622	Hotel Management	3
Semester Hours		16
<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
Semester Hours		16
<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
Semester Hours		12
<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
Semester Hours		16
<b>Spring</b>		
HMG 4896	Hospitality Operations Management	3
HMEC 4836	Internship	4
HMEC Concentration or Minor Electives		6
Semester Hours		13
Total Semester Hours		120

**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

## 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

- 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.):<sup>1</sup></b>		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.		
<b>Year 1</b>		
<b>Fall</b>		<b>S.H.</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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15

**Spring**

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
Semester Hours		15

**Year 3**

**Fall**

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
Semester Hours		15

**Spring**

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
Semester Hours		15

**Year 4**

**Fall**

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
Semester Hours		15

**Spring**

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
Semester Hours		15
Total Semester Hours		120

<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. 448) 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.ysu.edu/academics/bitonte-college-health-and-human-services/exercise-science-major>).

#### Chair

**Sara Michaliszyn**, Ph.D., Associate Professor, Chair

#### Professor

**Morgan Bagley**, Ph.D., Assistant Professor

**Frank J. Bosso**, Ph.D., Professor

**Nicole Mullins**, Ph.D., Professor

**Jennifer Pintar**, Ph.D., Professor

**Mike Sherman**, Ph.D., Professor

**Jessica Wallace**, Ph.D., Assistant Professor

#### Lecturer

**Michelle Van Dyke**, M.S., Lecturer

## Majors

- B.S. in Applied Science in Exercise Science (p. 452)
- B.S. in Applied Science in Exercise Science - Graduate Prep Track (p. 453)
- B.S. in Applied Science in Exercise Science - MAT Accelerated Track (p. 454)

## Minor

- Wellness (p. 456)

## Master's Degree

- Master of Athletic Training (<http://catalog.ysu.edu/graduate/graduate-programs/master-athletic-training>)

### **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.

**Gen Ed:** Well Being, Social and Personal Awareness.

### **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 or PHYS 1506.

**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 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 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 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 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 and 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, and osteoporosis).

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 and 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.yu.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

**Year 1**

<b>Fall</b>		<b>S.H.</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
Semester Hours		14

**Spring**

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
Semester Hours		17
<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
Semester Hours		13
<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
Semester Hours		14
<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
Semester Hours		15
<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
Semester Hours		16
<b>Year 4</b>		
<b>Fall</b>		
KSS 4810	Exercise Testing and Prescription 3	4
Elective		3
Elective		3
Elective		3
Semester Hours		13
<b>Spring</b>		
KSS 4880	Internship	8
KSS 4875	Exercise Counseling and Behavioral Strategies	4
Elective		3
Elective		3
Semester Hours		18
Total Semester Hours		120

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>		9
Core Competencies		
ENGL 1550	Writing 1	
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	
PHYS 1501L	Fundamentals of Physics Laboratory 1	
<b>Social Sciences</b>		6
PSYC 1560	General Psychology	
<b>Social &amp; 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
HPES 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

## 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



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
CMST 1545	Communication Foundations	3
A&H Elective		3
Semester Hours		16
<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
Semester Hours		15
<b>Year 2</b>		
<b>Fall</b>		
KSS 15XX Level Activity Elective		1
KSS 2605	Sports First Aid and Injury Prevention	3
KSS 2625	Pedagogical Aspects of Exercise Science	3
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
PSYC 1560	General Psychology	3
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 4880	Internship	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	
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		
Total Semester Hours: 120 - 122		

MAT Accelerated Program

CIM Four-Year Plan

### MAT Accelerated Program

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
Semester Hours		16
<b>Spring</b>		
KSS 1560	Resistance Training	2
KSS 2625	Pedagogical Aspects of Exercise Science	3
CHEM 1515L & CHEM 1515	General Chemistry 1 Laboratory and General Chemistry 1	4
ENGL 1551	Writing 2	3

BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
Semester Hours		16
<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
Semester Hours		19
<b>Spring</b>		
BIOL 3730	Human Physiology	4
BIOL 3730L	Human Physiology Laboratory	1
FNUT 1551	Normal Nutrition	3
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 3720L	Kinesiology and Applied Anatomy Laboratory	1
KSS 2605	Sports First Aid and Injury Prevention	3
KSS 3705	Statistics Research in Exercise Science	3
Semester Hours		19
<b>Year 3</b>		
<b>Fall</b>		
A&H Elective		3
KSS 3710	Physiology of Exercise	4
KSS 3710L	Physiology of Exercise Laboratory	1
KSS 3730	Exercise Testing and Prescription 2	4
KSS 4875	Exercise Counseling and Behavioral Strategies	4
Semester Hours		16
<b>Spring</b>		
KSS 3760	Strength Training and Conditioning	3
KSS 4810	Exercise Testing and Prescription 3	4
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	4
SS Elective		3
SPA Elective		3
Semester Hours		17
<b>Year 4</b>		
<b>Fall</b>		
<b>Graduate level courses will begin in year four</b>		
MAT 5865	Functional Human Gross Anatomy	4
MAT 6900	Basic Athletic Training Laboratory	1
MAT 6910	Clinical Practicum 1	4
MAT 6915	Evaluation and Management of Lower Extremity Injuries	4
Semester Hours		13
<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

**Students receive BSAS at end of year four.**

	Semester Hours	15
<b>Year 5</b>		
<b>Summer</b>		
MAT 6905	Psychosocial Aspects of Athletic Injuries	2
MAT 6950	Evidence-Based Practice/Research	3
MAT 6965	Advanced Perspectives	2
	Semester Hours	7
<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
	Semester Hours	13
<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>Students receive MAT at end of year five</b>		
	Semester Hours	12
	Total Semester Hours	163

## 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.

## 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. 458)
- Military Science Two Year Program (p. 458)

## Minors

- Minor in Military Science (p. 459)
- Minor in Military Science History Track (p. 459)
- Minor in Military Science Political Science Track (p. 459)

### 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
Total Semester Hours		22

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
Total Semester Hours		18

## 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
Total Semester Hours		18

## 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
Total Semester Hours		22

## Minor in Military Science History Track

COURSE	TITLE	S.H.
MSCI 1510	Introduction to ROTC	1
MSCI 1520	Introduction to Leadership	1
MSCI 1530L	Basic Course Leadership Laboratories	0
MSCI 2610	Self Team Development	2
MSCI 2620	Individual/Team Military Tactics	2
MSCI 2630L	Basic Course Leadership Laboratories	0
POL 1550	Introduction to Political Science	3
HIST 2601	American Military History	3
<b>History Courses</b>		
HIST 2606	Turning Points in United States History 2	3
Choose two of the following history courses:		6
HIST 3740	The Vietnam War	
HIST 3762	The Second World War	
HIST 3742	Diplomatic History of the United States 2	
Total Semester Hours		21

## Minor in Military Science Political Science Track

COURSE	TITLE	S.H.
MSCI 1510	Introduction to ROTC	1
MSCI 1520	Introduction to Leadership	1
MSCI 1530L	Basic Course Leadership Laboratories	0

MSCI 2610	Self Team Development	2
MSCI 2620	Individual/Team Military Tactics	2
MSCI 2630L	Basic Course Leadership Laboratories	0
POL 1550	Introduction to Political Science	3
HIST 2601	American Military History	3

### Political Science Courses

Choose three courses. Please note the prerequisites for POL 3741 and POL 3763.		
POL 2640	Contemporary World Governments	
POL 2660	International Relations	
POL 3741	Russia and China: From Revolution to Reform	
POL 3763	International Law	

Total Semester Hours 21

## 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 RN-BSN Online 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 RN-BSN Online 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 RN-BSN Online 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 RN-BSN Online 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:**

Commission on Collegiate Nursing Education (CCNE)  
655 K Street, NW, Suite 750  
Washington, DC 20001  
phone: (202) 887-6791

Accreditation Commission for Education in Nursing (ACEN)  
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 entry-level 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. Students who meet all requirements are encouraged to apply however attainment of the minimum GPA does not guarantee admission to the program due to a large applicant pool.

### Guaranteed Admission Eligibility

First-time freshman students who score a Composite ACT of 24 or an equivalent combined SAT score of 1190 and have an accumulative 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 program seats 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 1510 & 1510L	Chemistry for Allied Health Sciences and Chemistry for the Allied Health Sciences Laboratory	4
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
Total Semester Hours		31

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 122 total semester hours; 71 semester hours are nursing courses plus 90 on-campus lab hours and 960 clinical contact hours at health care facilities and in the community.

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

**Sheila M. Blank**, M.S.N., Assistant Professor

**Laura Calcagni**, M.S.N., Assistant Professor

**Lori Ann Fusco**, M.S.N., Assistant 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., Assistant Professor

**Pamela A. Schuster**, Ph.D., Professor

**Cynthia M. Shields**, D.N.P., Associate Professor

**Mary P. Shortreed**, D.N.P., Assistant Professor

**Wendy Thomas**, M.S.N., Assistant Professor

**Amy Weaver**, Ph.D., Associate Professor

#### Lecturer

**Edward Cornman**, D.N.P., Lecturer

**Nora Lipscomb**, M.S.N., Lecturer

**Paula McClusky**, M.S.N., Lecturer

**Rose Mucci**, M.S.N., Lecturer

**Teresa Peck**, M.S.N., Lecturer

## Majors

- BSN for Entry-Level Students (Non-RN) (p. 463)
- BSN for RN Students (RN-BSN Completion) (p. 464)

## Licensure

- School Nurse Licensure Program (p. 464)

### **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

### Year 1

		S.H.
<b>Fall</b>		
HAHS 1500	Introduction to the Bitonte College of Health and Human Services	2
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
	Semester Hours	16
<b>Spring</b>		
CHEM 1510 & 1510L	Chemistry for Allied Health Sciences and Chemistry for the Allied Health Sciences Laboratory	4
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
	Semester Hours	17

### 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	
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		122

**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
<b>II. Nursing Credit Escrow Hours awarded after completion of NURS 3720, NURS 3730, and NURS 3735 with a cumulative GPA of 2.00.</b>		
<b>Equates to the following courses:</b>		
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
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## 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.yosu.edu/undergraduate/colleges-programs/college-health-human-services/department-nursing/school-nurse-licensure-program/School\\_Nurse\\_Licensure\\_Program\\_-\\_7\\_-\\_2016.pdf](http://catalog.yosu.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.yosu.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

**Dana Davis**, Ph.D., Associate Professor, Chair

### Professor

**Mari L. Alschuler**, Ph.D., Associate Professor

**Audra Martin**, Ph.D., Assistant Professor

**Joseph L. Mosca**, Ph.D., Professor

**Meenakshi Venkataraman**, Ph.D., Assistant Professor

**Sherri Harper Woods**, D.M., Assistant Professor

### Lecturer

**Meghan Bileci**, M.S.W., Lecturer

**Tami W. Holcomb-Hathy**, M.S.S.A., Senior Lecturer

**Karla A. Wyant**, M.S., Senior Lecturer

## Majors

- Pre-Social Work (p. 470)
- Social Work (p. 467)

## Minors

- Minor in Social Work (p. 469)

### 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 from 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.

# 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.

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 [jlmeyers09@ysu.edu](mailto:jlmeyers09@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](mailto: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	Quantitative Reasoning	3
or STAT 2625	Stat Lit and Crit Reasoning	
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

## Social Work Major Requirements

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:		
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

## Electives



Electives	12
<b>Total Semester Hours</b>	<b>120</b>

**Year 1**

		S.H.
<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>

**Year 2**

		S.H.
<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>

**Year 3**

		S.H.
<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 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	3
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>
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**Year 4**

		S.H.
<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

Total Semester Hours 18

## 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
Total Semester Hours		47

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
Total Semester Hours		26

## 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.

#### Year 1

Fall		S.H.
AERO 1501	Foundation of United States Air Force 1	1
AERO 1503	Leadership Laboratory	1
Semester Hours		2

#### Spring

AERO 1502	Foundation of United States Air Force 2	1
AERO 1504	Leadership Laboratory	1
Semester Hours		2

#### Year 2

Fall		
AERO 2601	Evolution of United States Air Force and Space Power 1	1
AERO 2603	Leadership Laboratory	1
Semester Hours		2

#### Spring

AERO 2602	Evolution of United States Air Force Air and Space Power 2	1
AERO 2604	Leadership Laboratory	1
Semester Hours		2

#### Year 3

Fall		
AERO 3701	Leadership Studies 1	3
AERO 3703	Leadership Laboratory	1
Semester Hours		4

#### Spring

AERO 3702	Leadership Studies 2	3
AERO 3704	Leadership Laboratory	1
Semester Hours		4

#### Year 4

##### Fall

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
Semester Hours		8
Total Semester Hours		24

## The College of Science, Technology, Engineering, and Mathematics

*Wim Steelant, Ph.D., Dean*

*Greg Dillon, Ph.D., Associate 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, Industrial and Manufacturing 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 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.

## 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.ysu.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., Professor

**Ian J. Renne**, Ph.D., Associate Professor

**Mark D. Womble**, Ph.D., Professor

## Majors

- BS in Biological Sciences (p. 480)
- BA in Biological Sciences (p. 479)

## Certificates

- Certificate in Anatomy and Physiology (p. 483)
- Certificate in Biomedical Research (p. 482)
- Certificate in Molecular and Biotechnology (p. 483)

## Minors

- Biological Sciences Minor (p. 482)

### 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 5858 Computational Bioinformatics 3 s.h.**

Project-based learning course with a focus on using a Linux environment and PERL for processing large genomic datasets and data mining. Relational database and BioPERL will also be introduced for genomic data analysis and display. Three hours of combined lecture and lab per week.

**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. 49), see the Academic Policies and Procedures section of the Undergraduate Catalog.)

## Recommended core curriculum meeting science requirements of medically related and other professional schools.

Year 1		S.H.
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		16-18
<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
<b>Semester Hours</b>	<b>16-18</b>
<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
<b>Semester Hours</b>	<b>17</b>
<b>Spring</b>	
BIOL 3700-5800 course w/ lab	4
BIOL 3700-5800 course	3-4
GER electives (AL), (PS)	6
General Elective	3
<b>Semester Hours</b>	<b>16-17</b>
<b>Year 4</b>	
<b>Fall</b>	
BIOL 3700 course	3-4
General Electives	9
<b>Semester Hours</b>	<b>12-13</b>
<b>Spring</b>	
BIOL 3700-5800 course	4
BIOL 4861 Senior Biology Capstone Experience	2
General Electives	9
<b>Semester Hours</b>	<b>15</b>
<b>Total Semester Hours</b>	<b>122-128</b>

## 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	
<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>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
<b>Group A</b>		
BIOL 3711	Cell Biology: Fine Structure	
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	
<b>Group B</b>		
BIOL 3730 & 3730L	Human Physiology and Human Physiology Laboratory	
BIOL 3725	Mammalogy	
<b>Group C</b>		
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
<b>Chemistry (16 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

Enrollment in the recitation sections are recommended for PHYS 1501 and the above Chemistry courses.

**Year 1**

Fall		S.H.
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
Semester Hours		14

**Spring**

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
Semester Hours		14

**Year 2**

Fall		
Biology Core Courses (choose 1 of 3) <sup>1</sup>		
MATH 1570 or MATH 1571	Applied Calculus 1 or Calculus 1	4
BIOL 3721	Genetics (CT)	3
CHEM 3719	Organic Chemistry 1	4
Semester Hours		15-16

**Spring**

Biology Core Course: choose 1 of 3 <sup>1</sup>		
STAT 3717 or BIOL 5853	Statistical Methods or Biometry	4
CHEM 3720	Organic Chemistry 2	4
GER elective (SI)		3
Semester Hours		15-16

**Year 3**

Fall		
BIOL 3700-5800 course		
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1	5
GER electives (PS), (SI)		6
Semester Hours		15

**Spring**

BIOL 3700-5800 course		
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2	4
GER Electives (AL), (PS)		6
Semester Hours		14

**Year 4**

Fall		
BIOL 3700 course		4
BIOL 5800 course		4

GER elective (AL)	3	
General Electives	6	
Semester Hours		17

**Spring**

BIOL 3700-5800 course		4
BIOL 4861	Senior Biology Capstone Experience	2
General Electives		4-10
Semester Hours		10-16
Total Semester Hours		114-122

<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 of 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
Total Semester Hours		18-21

## 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	3
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 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 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 instructor

BIOL 5827	Gene Manipulation	2
CHEM 3785	Biochemistry 1	3
or BIOL 4829	Microbial Physiology	
<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	Plant Physiology	
or BIOL 4829	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
BIOL 5840	Advanced Microbiology	3
<b>Subtotal of elective BIOL courses: 6-8 s.h.</b>		

## 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

Department of Chemistry

Ward Beecher Science Hall, Room 5053

Youngstown State University

Youngstown, OH 44555

(330) 941-3664

Dr. Tim R. Wagner, Chair (trwagner@ysu.edu)

The YSU Department of Chemistry is comprised of 14 full-time faculty, 10 adjunct & part time faculty, 3 staff members, over 120 majors in its BS & BA Chemistry and BS Biochemistry programs, and an active MS program with 16 students. The department is exceptionally well-equipped in research instrumentation, and offers a rich, hands-on 'learning through research' experience for its students. State-of-the-art laboratory facilities include NMR, X-ray diffraction (powder and single crystal), electron microscopy (scanning & transmission), and a variety of analytical instrumentation. As part of the College of STEM, the department also participates in the YSU Ph.D. program in Materials Science and Engineering.

Our BS Chemistry program is accredited by the American Chemical Society (ACS), one of the largest scientific societies in the world. Students completing an accredited program are considered to be especially well-trained for the chemistry profession, thus the BS degree is recommended for those students who plan to make a career in industrial chemistry or pursue a graduate degree in chemistry. The BA degree is recommended for those who plan to go into a medical, pharmacy, or dental field and for those who plan to enter business or secondary education careers related to chemistry. The BS Biochemistry degree integrates the chemical and biological sciences for students interested in developing a deep understanding of the molecular and chemical processes of living organisms. Students completing this program will be especially well-prepared for further studies in medicine or graduate school programs in biochemistry, or for related careers in the chemical industry.

Each student majoring in chemistry or biochemistry will be assigned a faculty advisor by the department. The advisor will discuss the overall curriculum necessary for your degree program and will assist you in the preparation of a suitable course sequence and choice of a minor or minors if applicable.

For further information, click on the tabs above or visit the Department of Chemistry (<http://chemistry.yzu.edu>) home page.

#### 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

#### Lecturer

**Ken Adair**, Ph.D., Lecturer

## Majors

- BS in Chemistry (p. 489)
- BA in Chemistry (p. 487)
- BS in Biochemistry (p. 490)
- BS in Biochemistry, BaccMed Track (p. 492)

## Minors

- Chemistry Minor (p. 493)

### **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 Chemistry for Allied Health Sciences 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.

**Gen Ed:** Natural Science.

**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 3739 Physical Chemistry 1 3 s.h.**

Principles and applications of thermodynamics and kinetics to chemical systems.

**Prereq.:** "C" or better in CHEM 3720, PHYS 2611, PHYS 2611L, MATH 1572.

**CHEM 3739L Physical Chemistry 1 Laboratory 1 s.h.**

Quantitative thermodynamic and kinetic measurements of chemical systems.

**CHEM 3740 Physical Chemistry 2 3 s.h.**

Principles and applications of quantum mechanic and statistical thermodynamics to chemical systems. Three hours lecture.

**Prereq.:** "C" or better in CHEM 3739; MATH 2673.

**CHEM 3740L Physical Chemistry 2 Laboratory 1 s.h.**

Spectroscopy and computational measurements of chemical systems.

**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 grade of "C" or better.

**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.

## 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
Mathematics requirement included in 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
Foreign Language		8
Foreign Language 1550		
Foreign Language 2600		
<b>The following CHEM core courses are required (29 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	<b>Year 1</b>		
CHEM 1516R	Recitation for General Chemistry 2	1	<b>Fall</b>		<b>S.H.</b>
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5	CHEM 1515 & 1515L & 1515R	General Chemistry 1 and General Chemistry 1 Laboratory and Recitation for General Chemistry 1	5
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4	MATH 1571	Calculus 1	4
CHEM 3719R	Organic Chemistry Recitation 1	1	ENGL 1550	Writing 1	3
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4	STEM 1520	STEM First Year Orientation	2
CHEM 3720R	Organic Chemistry Recitation 2	1		Semester Hours	14
CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4	<b>Spring</b>		
<b>The following capstone is required (1 s.h.):</b>			CHEM 1516 & 1516L & 1516R	General Chemistry 2 and General Chemistry 2 Laboratory and Recitation for General Chemistry 2	5
CHEM 4850	Chemistry Research	1	MATH 1572	Calculus 2	4
<b>The following non-CHEM courses are required (18 s.h.):</b>			ENGL 1551	Writing 2	3
MATH 1571	Calculus 1	4	GER		3
MATH 1572	Calculus 2	4		Semester Hours	15
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5	<b>Year 2</b>		
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5	<b>Fall</b>		
<b>Electives:</b>			CHEM 3719 & 3719L & 3719R	Organic Chemistry 1 and Organic Chemistry 1 Laboratory and Organic Chemistry Recitation 1	5
Select 9 s.h. of upper-level CHEM electives (3000 or higher) from the list below:		9	CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3729	Inorganic Chemistry		PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
CHEM 3740 & 3740L	Physical Chemistry 2 and Physical Chemistry 2 Laboratory			Semester Hours	15
CHEM 3764	Chemical Toxicology		<b>Spring</b>		
CHEM 3785	Biochemistry 1		CHEM 3720 & 3720L & 3720R	Organic Chemistry 2 and Organic Chemistry 2 Laboratory and Organic Chemistry Recitation 2	5
CHEM 3785L	Biochemistry Laboratory		PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
CHEM 3786	Biochemistry 2		GER		6
CHEM 3790	Undergraduate Seminar			Semester Hours	16
CHEM 4850L	Chemistry Research Laboratory		<b>Year 3</b>		
CHEM 4860	Regulatory Aspects of Industrial Chemistry		<b>Fall</b>		
CHEM 4891	Special Topics		CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory		FNLG 1550	Elementary Foreign Language	4
CHEM 5821	Intermediate Organic Chemistry		Electives		5
CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory		GER		3
CHEM 5830	Intermediate Inorganic Chemistry			Semester Hours	16
CHEM 5831	Inorganic Chemistry Laboratory		<b>Spring</b>		
CHEM 5832 & 5832L	Solid State Structural Methods and Solid State Structural Methods Laboratory		FNLG 2600	Intermediate Foreign Language	4
CHEM 5836	Quantum Chemistry		Upper-Level Chemistry Elective		3
CHEM 5861 & 5861L	Polymer Science 1: Polymer Chemistry and Plastics and Polymer Science 1: Polymer Chemistry and Plastics Laboratory		Upper-Level Electives		5
CHEM 5862 & 5862L	Polymer Science 2: Polymer Rheology, Processing, and Composites and Polymer Science 2: Polymer Rheology, Processing, and Composites Laboratory		GER		3
CHEM 5876	Enzyme Analysis			Semester Hours	15
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	<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
Total Semester Hours		120		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

### Year 1

Fall		S.H.
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
Semester Hours		14

### 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
GER		3
Semester Hours		15

**Year 2****Fall**

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
Semester Hours		15

**Spring**

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
Semester Hours		14

**Year 3****Fall**

CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4
CHEM 3729	Inorganic Chemistry	3
Elective		3
GER		6
Semester Hours		16

**Spring**

CHEM 3740 & 3740L	Physical Chemistry 2 and Physical Chemistry 2 Laboratory	4
Upper Level Chemistry Electives		6
Elective		3
GER		3
Semester Hours		16

**Year 4****Fall**

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
Semester Hours		15

**Spring**

Upper Level CHEM Elective		3
Upper Level Electives		9
GER		3
Semester Hours		15
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.
- 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.		
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 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 or STAT 3743	Statistical Methods or Probability and Statistics	4
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
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**Year 1**

<b>Fall</b>		<b>S.H.</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
	Semester Hours	14

**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
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
ENGL 1551	Writing 2	3
	Semester Hours	16

**Year 2****Fall**

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
	Semester Hours	15

**Spring**

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
	Semester Hours	14

**Year 3****Fall**

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
	Semester Hours	17

**Spring**

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
	Semester Hours	15

**Year 4****Fall**

CHEM 4850	Chemistry Research	1
CHEM 4850L	Chemistry Research Laboratory	2
CHEM Upper-Level Elective		6
CMST 1545	Communication Foundations	3
GER		3
	Semester Hours	15

**Spring**

CHEM Upper-Level Elective		4
BIOL Upper-Level Elective		4
GER		6
	Semester Hours	14
	Total Semester Hours	120

## 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.		
<b>The following CHEM core courses are required (38 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 5876	Enzyme Analysis	2
<b>The following capstone is required (3 s.h.):</b>		
CHEM 4850	Chemistry Research	1
CHEM 4850L	Chemistry Research Laboratory	2
<b>The following BIOL core courses are required (14 s.h.):</b>		
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
<b>The following non-CHEM courses are required (22 s.h.):</b>		
MATH 1581H or MATH 1571	Honors Biomathematics 2 or Calculus 1	4
MATH 1572	Calculus 2	4
STAT 3743 or STAT 3717	Probability and Statistics or Statistical Methods	4
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
<b>Required Electives:</b>		
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
<b>Select 3 s.h. in upper-level BIOL courses from the list below.</b>		
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

**Year 1**  
**Summer** S.H.

Second Summer Session		
BIOL 2603	Integrated Biology for BS/MD	4
PSYC 1560	General Psychology	3
Semester Hours		7

<b>Fall</b>		
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

<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
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

<b>Fall</b>		
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

<b>Spring</b>		
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
Second Summer Session		
CMST 1545	Communication Foundations	3
GER Arts & Humanities		3
Semester Hours		11

<b>Fall</b>		
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

<b>Spring</b>		
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.ysu.edu/academics/science-technology-engineering-mathematics>).

#### Chair

**Douglas M. Price**, Ph.D., Associate 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

**AKM Anwarul Islam**, Ph.D., Professor

**Holly J. Martin**, Ph.D., Assistant Professor

**Byung-Wook Park**, Ph.D., Assistant Professor

**Suresh Sharma**, Ph.D., Assistant Professor

**Anthony S. Vercellino**, Ph.D., Assistant Professor

## Majors

- Chemical Engineering Program (p. 498)
- Civil Engineering Program (p. 502)

## 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 3710 Civil Engineering Materials 3 s.h.

A study of the principal materials used for civil engineering and construction purposes, with special attention paid to physical and mechanical properties of the materials and their importance to the engineer.

**Prereq.:** CEEN 2602.

### 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 5836 Environmental Water Chemistry 3 s.h.**

Fundamental principles and calculations of major chemical reactions and equilibria that occur in aquatic environments, and water/wastewater treatment processes.

**Prereq.:** CEEN 3736.

**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 5869 Design of Air Pollution Control Systems 3 s.h.**

Engineering analysis, procedures, and techniques for the selection, applications and operation of air pollution control methods in various operational situations.

**Prereq.:** CEEN 3736.

**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 5880 Advanced Hydraulics 3 s.h.**

Application of hydraulic principles for one dimensional river modeling; understanding the fundamental processes of open channel hydraulics; application of HEC-RAS/HEC-GeoRAS models for river system modeling.

**Prereq.:** CEEN 3717 grade of "C" or better.

**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

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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	<b>Year 1</b>		
CHEM 3785L Transport Phenomena Laboratory	1	<b>Fall</b>		<b>S.H.</b>
CHEM 3786 Transport Phenomena 1	4	ENGL 1550	Writing 1	3
CHEM 3787 Transport Phenomena 2/Unit Operations 1	3	ENGR 1500	Engineering Orientation	1
CHEM 3787L Unit Operations Laboratory 1	1	ENGR 1550	Engineering Concepts	2
CHEM 4815 Unit Operations 2	3	CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
Unit Operations 2 Recitation	1	MATH 1571	Calculus 1	4
CHEM 4880 Chemical Reactor Design 1	3	GER AH-1	Arts and Humanities Elective	3
Chemical Reactor Design Recitation	1		Semester Hours	17
CHEM 4882 Process Dynamics	3	<b>Spring</b>		
CHEM 4887 Process and Plant Design 1	3	ENGL 1551	Writing 2	3
CHEM 4888 Process and Plant Design 2	3	CMST 1545	Communication Foundations	3
Chemical Engineering Elective 1	3	ENGR 1560	Engineering Computing	2
Chemical Engineering Elective 2	3	CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
<b>Mathematics Courses</b>		MATH 1572	Calculus 2	4
MATH 1571 Calculus 1	4		Semester Hours	16
MATH 1572 Calculus 2	4	<b>Year 2</b>		
MATH 2673 Calculus 3	4	<b>Fall</b>		
Honors Calculus 1 and 2 can be substituted for Calculus 1, 2, and 3		CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
MATH 3705 Differential Equations	3	MATH 2673	Calculus 3	4
<b>Chemistry Courses</b>		PHYS 2610	General Physics 1	4
CHEM 1515 General Chemistry 1	4	CHEM 2650	Computer Methods in Chemical Engineering	2
CHEM 1515L General Chemistry 1 Laboratory	0	CHEM 2683	Chemical Engineering Principles 1	3
CHEM 1516 General Chemistry 2	4		Semester Hours	17
CHEM 1516L General Chemistry 2 Laboratory	0	<b>Spring</b>		
CHEM 3719 Organic Chemistry 1	4	CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM 3719L Organic Chemistry 1 Laboratory	0	MATH 3705	Differential Equations	3
CHEM 3720 Organic Chemistry 2	4	PHYS 2611	General Physics 2	4
CHEM 3720L Organic Chemistry 2 Laboratory	0	CHEM 2684	Chemical Engineering Principles 2	3
CHEM 3739 Physical Chemistry 1	4		Semester Hours	14
Physical Chemistry 1 for Chemical Engineers can be substituted for Physical Chemistry 1		<b>Year 3</b>		
CHEM 4860 Regulatory Aspects of Industrial Chemistry	1	<b>Fall</b>		
Advanced Chemistry/Biology Elective	3	Engineering Elective <sup>3</sup>		3
<b>Physics Courses</b>		CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4
PHYS 2610 General Physics 1	4	CHEM 3771	Chemical Engineering Thermodynamics 1	3
PHYS 2611 General Physics 2	4	CHEM 3771 Recitation		1
<b>Communication Courses</b>		CHEM 3786	Transport Phenomena 1	4
ENGL 1550 Writing 1	3		Semester Hours	15
ENGL 1551 Writing 2	3	<b>Spring</b>		
CMST 1545 Communication Foundations	3	GER SS-1	Social Science Elective	3
<b>General Education Courses</b>		Advanced Chemistry/Biology Elective <sup>2</sup>		3
<b>Arts and Humanities</b>		CHEM 4860	Regulatory Aspects of Industrial Chemistry	1
PHIL 1561 Technology and Human Values	3	CHEM 3787	Transport Phenomena 2/Unit Operations 1	3
OR		CHEM 3785L	Transport Phenomena Laboratory	1
PHIL 2625 Introduction to Professional Ethics	3	CHEM 4880	Chemical Reactor Design 1	3
OR		CHEM 4880 Recitation		1
PHIL 2626 Engineering Ethics	3		Semester Hours	15
OR		<b>Year 4</b>		
PHIL 2628 Business Ethics	3	<b>Fall</b>		
Other Arts and Humanities Elective	3	GER SPA-1	Social & Personal Awareness Elective	3
Social Science Elective		GER AH-2	Arts and Humanities Elective: Ethics <sup>1</sup>	3
Select 2 Courses		CHEM 3787L	Unit Operations Laboratory 1	1
Social and Personal Awareness Elective				
Select 2 Courses				

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	
<b>2. Advanced Chemistry/Biology Elective</b> 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		
<b>3. Engineering Elective</b> 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> 6		
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 3 s.h.**

Principles and applications of thermodynamics and kinetics to chemical systems.

**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.:** C or better in 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 with a "C" or better.

**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.:** C or better in 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.

**CHEM 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.

**CHEM 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.

**CHEM 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.:** CHEM 2683.

**CHEM 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 CHEM 2684.

**CHEM 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.:** CHEM 3786 or concurrent.

**CHEM 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.:** CHEM 3786.

**CHEM 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.:** CHEM 3787.

**CHEM 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.:** CHEM 3787.

**CHEM 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.:** CHEM 4815.

**CHEM 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.:** CHEM 3771.

**CHEM 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.:** CHEM 3786.

**CHEM 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.:** CHEM 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:

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Civil/Environmental & Chemical Engineering  
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Youngstown, OH 44555

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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.

## 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

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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.

### Year 1

Fall		S.H.
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

### Semester Hours

17

### Spring

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

### Semester Hours

15

### Year 2

Fall		
MATH 2673	Calculus 3	4



CEEN 2610 & 2610L	Surveying and Surveying Laboratory	4
CEEN 2601	Statics	3
PHYS 2610	General Physics 1	4
Semester Hours		15

**Spring**

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
Semester Hours		16

**Year 3****Fall**

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
Semester Hours		17

**Spring**

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
Semester Hours		17

**Year 4****Fall**

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
Semester Hours		15

**Spring**

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
Semester Hours		15
Total Semester Hours		127

## 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 3710 Civil Engineering Materials 3 s.h.**

A study of the principal materials used for civil engineering and construction purposes, with special attention paid to physical and mechanical properties of the materials and their importance to the engineer.

**Prereq.:** CEEN 2602.

**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 5836 Environmental Water Chemistry 3 s.h.**

Fundamental principles and calculations of major chemical reactions and equilibria that occur in aquatic environments, and water/wastewater treatment processes.

**Prereq.:** CEEN 3736.

**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 5869 Design of Air Pollution Control Systems 3 s.h.**

Engineering analysis, procedures, and techniques for the selection, applications and operation of air pollution control methods in various operational situations.

**Prereq.:** CEEN 3736.

**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 5880 Advanced Hydraulics 3 s.h.**

Application of hydraulic principles for one dimensional river modeling; understanding the fundamental processes of open channel hydraulics; application of HEC-RAS/HEC-GeoRAS models for river system modeling.

**Prereq.:** CEEN 3717 grade of "C" or better.

**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

## OVERVIEW

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.

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## WELCOME FROM THE CHAIR

As the Chair of the Computer Science and Information Systems (CSIS) Department, I extend my greetings to you! I hope you find this booklet to demonstrate the excitement found within our department.

This is a great era to be a computer scientist. Computers and software have found themselves majorly in everyday life and assist in advancing the areas of business, healthcare, education, social science, and science and engineering. The smartphone on your pocket right now, is more powerful than desktop computers five to six years ago!

Computer Science is a creative and exciting, dynamic and interactive, and highly integrated into social lifestyles. Computer Science blends together both mathematical and philosophical questions of intricacy and intelligence for technologies that makeup our lifestyles. In all areas, we collect and prompt data, which requires a new scale of algorithms and systems that drive to create new technology. As of right now, there is major demand for those trained in both Computer Science and Information Systems graduates and undergraduates. This demand has created growth in Computer Science and Information Systems worldwide. The areas of anthropology and zoology have begun to notice a need for computational thinking, making this a high demand for not in the program.

Our goal is to give students the most current curriculum that helps create software to benefit our society. Our capstone courses give students a chance to collaborate projects with industries. We take pride in giving both our graduate and undergraduate students quality education. Our program prepares students to apply both knowledge and training to create solutions to specific solutions. Students learn how to define a problem, then determine its manageability, when outside help is needed, and then to evaluate appropriate solutions. They then study, specify, create, implement, test, and document that solution. They evaluate both alternatives and risks for the solution, integrate different technologies, and then communicate this solution to their colleagues. The key to learning the ability of problem-solver and to work in a team environment.

We also have a long history of undergraduates successfully being involved in research. Every year, students are given the opportunity to join research groups or their own design with the assistance of a faculty member. We also actively send students for internships for companies big and small. Students can also pursue a co-op program in which they work for a company for nine months.

We offer a variety of degrees in computing-related areas. All programs combined core-principles along with hands-on laboratory experience, helping prepare students for exciting careers. All students can participate in sponsored research programs and professional student organization such as ACM or IEEE. Most undergraduates go to work in major companies, while others

pursue startups, work in government, or continue education. A number of our graduate students pursue careers in academia.

I am very proud of both our students and faculty. Please make arrangements to visit us, we would love to meet you! If you have any questions feel free to contact me at [cbayrak@ysu.edu](mailto:cbayrak@ysu.edu).

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## DEPARTMENT CONTACT INFORMATION

Phone: (330) 941-3134

Location: Meshel Hall, Room 339

E-mail: [CSIS@ysu.edu](mailto:CSIS@ysu.edu)

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### LEARNING OUTCOMES

The learning outcomes for each program can be found at:

- BS in Computer Science (p. 519)
- AAS in Computer Information Systems (p. 513)
- BSAS in Computer Information Systems (p. 516)
- AAS in Information Technology (p. 515)
- BSAS in Information Technology (p. 518)

For more information, please see the program coordinator/department chair.

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### MISSION STATEMENT

The increasingly interdisciplinary nature of computer science has significantly pushed its frontiers, while at the same time reinvigorated research into the foundations of computing. This duality informs and guides how we implement our mission. The primary mission of the CSIS Department is to:

- generate and spread knowledge, train future scholars who actively participate in their field of study, and give services to our community. The field of computer science has extensively created new technology and has also given way for new research topics. This ability creates our mission in this department.
- 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.
- develop partnerships with local industry and school systems to benefit the economic health of the Mahoning Valley.
- supports and encourages research, industry partnerships, and other activities leading to the development of new technologies and new classroom methods and techniques.
- recognize that computing has become an increasingly crucial aspect of all disciplines of knowledge, and support interdisciplinary programs and forms symbiotic relationships with other disciplines in areas of greatest benefit to students.
- support 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.
- 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 (M-339) in Meshel Hall or from the department's website.

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### ADMISSION REQUIREMENTS FOR THE DEPARTMENT

Students will initially be admitted to University in the "STEM-T" (formerly "PRE-COMPUTER") major in the STEM College. Students may and should apply for a transfer into the Computer Science, Computer Information Systems, or Information Technology programs once they have met the eligibility requirements. Students will be eligible to transfer to the CSCI, CIS, or IT major once they have completed all pre-college Math (i.e. ready to take MATH 1513, 1552, or higher MATH) and pre-college English (i.e. ready to take ENGL 1550).

The typical courses taken by a PRE-COMPUTER major prior to transferring to a departmental program follows:

- Intended Major - Computer Science: **CSIS 1590** or **CSIS 2610**
- Intended Major - Computer Information Systems: **CSIS 1590** or **CSIS 2610**
- Intended Major - Information Technology: **INFO 1575** or **CSIS 1590**

New students, former YSU students, and external transfer students will enter the University as "STEM-T" majors and apply for admission to a departmental major when the above criteria are satisfied.

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### GRADUATION POLICIES

Students must meet the degree requirement of each program offered in the department. The curricular requirements for each program is listed below. For more information, please see the program coordinator/department chair.

- BS in Computer Science (p. 518)
- AAS in Computer Information Systems (p. 513)
- BSAS in Computer Information Systems (p. 515)
- AAS in Information Technology (p. 514)
- BSAS in Information Technology (p. 517)

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### ADVISING AND ADVISOR LIST

Advising, which is a continuous and consistent collaborative process between faculty members and students, is to make sure that students are making the right decision in the growth and development process, while seeking a degree. The role of academic advisor is to help students in developing efficient and effective educational plans that is inline with the life goals. Therefore, advisors are to:

- help students (advisees) to adapt the planning nature of the academic life and expectations, which is consistent with their abilities and interests.
- meet with students once a semester to for academic planning
- monitor and mentor the the student progress towards the educational goals
- make sure rules and regulations are well understood by the students and the necessary steps are taken in the correct order.
- approve all designated educational transactions (registration, advising, course transfer, major selection, graduation requirements, etc..)

The programs offered in the department has the following advisors (\* indicates the coordinator of the program):

- Computer Science (CS) (p. 518): (Dr. Robert Kramer\*, Dr. John Sullins, Dr. Yong Zhang)
- Computer Information Systems (CIS) (p. 515): (Dr. Kriss, Schueller\*, Dr. Feng Yu, Dr. Bonita Sharif)



- Information Technology (IT) (p. 516): (Dr. Abdu Arslanyilmaz\*, Mr. Robert Gilliland)

#### 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

**John R. Sullins**, Ph.D., Associate Professor

**Feng Yu**, Ph.D., Associate Professor

**Yong Zhang**, Ph.D., Associate Professor

#### Lecturer

**Robert Gilliland**, M.C.I.S., Lecturer

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## Majors

- BS in Computer Science (p. 518)
- AAS in Computer Information Systems (p. 513)
- BSAS in Computer Information Systems (p. 515)
- AAS in Information Technology (p. 514)
- BSAS in Information Technology (p. 516)

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## Minors

- Minor in Computer Databases (p. 519)
- Minor in Computer Networking (p. 520)
- Minor in Electronic Commerce Technology (p. 520)
- Minor in Information Systems Programming (p. 520)
- Minor in Integrated Technologies (p. 520)
- Minor in Multimedia and Web Design (p. 520)
- Minor in Object-Oriented Programming (p. 520)
- Minor in Computer Science (p. 520)
- Minor in Security – Requirements will be posted soon.
- Minor in Tech Support– Requirements will be posted soon.
- Minor in Web Communication– Requirements will be posted soon.

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## 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.:** CIS 2605 or CIS 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.:** CIS 2605 or CIS 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.:** CIS 2605 or CIS 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.:** CIS 2605 or CIS 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.:** CIS 3722, CIS 3723, and 3 additional s.h. of upper-division departmental courses.

**Gen Ed:** Capstone.

## Computer Science and Information Systems

### CIS 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 CIS 1500 and for either CIS 1514, CIS 1525, or CIS 1590.

### CIS 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.:** CIS 1500.

### CIS 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 CIS 1500: Computer Literacy before taking this course.

### CIS 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 CIS 1500: Computer Literacy before taking this course.

### CIS 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; prerequisite 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 3737 Game Programming 3 s.h.**

Programming and development of computer games using a game programming environment. Software tools for coding 2D and 3D graphics and animation, sprites and other assets, and handling input events, motion, and collisions. Object-oriented programming and AI concepts for game development.

**Prereq.:** CSIS 1595 or CSIS 2610.

**CSIS 3738 Graphics and Animation Gaming 3 s.h.**

Design and implementation of animated characters in 3D computer games. Mesh design creation; surface materials, textures, and lighting; skeletal and facial rigging; motion and animation. Underlying physical principle and realistic character design concepts. Use of 3D animation software.

**Prereq.:** CSIS 1595 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 or CSIS 3701 or 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 or CSIS 3701.

**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 2605 or CSIS 2610; MATH 1513 or MATH 1552 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
Support Courses		
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

### Year 1

Fall	S.H.	
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
Semester Hours		16

### Spring

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
Semester Hours		15

### Year 2

#### Fall

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
Semester Hours		15

#### Spring

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
Semester Hours		16
Total Semester Hours		62

## 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.

- 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.
- 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.
- 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.
- The Associates program in Computer Information Systems provides preparation for students to write programs for client/server systems 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:

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
Total Semester Hours		66
<b>Year 1</b>		
<b>Fall</b>		<b>S.H.</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
Semester Hours		16

Spring		
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
Semester Hours		18
Year 2		
Fall		
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
Semester Hours		17
Spring		
INFO 3775	Multimedia Authoring	4
INFO 3704 or ENGL 3743	Business Communication or Professional and Technical Writing	3
INFO Specialization Course		4
CSIS 2699	Computer Science and Information Systems Internship	1
General Education Course		3
Semester Hours		15
Total Semester Hours		66

## 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

## 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. Some Gen Ed courses may be included in the minor		
Total Semester Hours		122
Year 1		
Fall		
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
Semester Hours		16
Spring		
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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		16
<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
Semester Hours		16
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		13
Total Semester Hours		122

### Learning Outcomes

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.

## 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
- 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	Networking Concepts and Administration	3
or CSIS 3782	Cisco Networking Academy 1	
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
<b>Concentration area</b>		9
Database Concentration		
CSIS 3726	Visual/Object-Oriented Programming	
CSIS 4822	Database Applications	
INFO 3714	Advanced Spreadsheets	
E-Commerce Concentration		
CSIS 2660	Foundations of Electronic Commerce	

CSIS 3760	Electronic Commerce Programming	
CSIS 3761	Electronic Commerce Strategies	
Multimedia Concentration		
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	
Networking Concentration		
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	
Security Concentration		
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	<small>Any courses to meet 120 total hours</small>	7
Total Semester Hours		120
<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
Semester Hours		16
<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
Semester Hours		16
<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

Minor		3
GER Arts & Humanities		3
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
<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.		
Semester Hours		15
<b>Year 4</b>		
<b>Fall</b>		
IT Concentration		3
INFO/CSIS UD elective		3
Minor Course		3
GER NS		3
Free Elective		3
Semester Hours		15
<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
Semester Hours		13
Total Semester Hours		120

## 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
Arts and Humanities		
PHIL 2625	Introduction to Professional Ethics	
Natural Sciences		
Social Science		
Social and Personal Awareness		
General Education Elective		



**Major Requirements**

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

**Mathematics Minor**

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 To meet 18 hour minor		4
Free Electives Any courses to meet 120 total hours		21
Total Semester Hours		120

**Year 1**

<b>Fall</b>		<b>S.H.</b>
CSIS 2610	Programming and Problem-Solving	4
MATH 1571	Calculus 1	4
ENGL 1550	Writing 1	3
GER Natural Science + Lab		4
Semester Hours		15

**Spring**

CSIS 3700	Data Structures and Objects	4
MATH 1572	Calculus 2 (minor)	4
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Semester Hours		14

**Year 2**

<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
Semester Hours		16

**Spring**

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
Semester Hours		15

**Year 3**

<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
Semester Hours		15

**Spring**

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
Semester Hours		15

**Year 4**

**Fall**

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
Semester Hours		15

**Spring**

CSCI 5806	Operating Systems	3
CSCI/CSIS Upper Division Elective		3
Free Elective		3
Free Elective		3
Free Elective		3
Semester Hours		15
Total Semester Hours		120

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
Total Semester Hours		20

## 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	
Total Semester Hours		18-19

## 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	
Total Semester Hours		20-21

## 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
Total Semester Hours		19

## 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	

COURSE	TITLE	S.H.
CSIS 3760	Electronic Commerce Programming	
Total Semester Hours		18

## 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	
Total Semester Hours		20

## 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
Total Semester Hours		19

## 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
Total Semester Hours		21

## 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 are 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:

- Competently design, analyze, test, and implement systems and devices in the field of electrical engineering within the constraints set by the client and by society, and disseminate the results.
- Practice engineering ethically and responsibly, both individually and within diverse teams, while holding paramount the impact of engineering decisions on society and ecology.
- Commit to a career long dedication to growth through continued learning in their engineering profession and/or pursuit of post graduate education, and to demonstrate leadership and influence within their employer's organization.

## Student Outcomes

The following (1 through 7) Student Outcomes support the program educational objectives. Attainment of these outcomes by students by the time of their graduation prepares graduating students to enter the professional practice of engineering.

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## 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.

## Tracks

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 TRACK

The traditional option:

COURSE	TITLE	S.H.
	Electrical Engineering Core	53
	Other Engineering	11
	Math	18
	Science	15
	Writing and Speech	9
	General Education Courses	18
Total Semester Hours		124

### Computer/digital TRACK

The computer/digital option:

COURSE	TITLE	S.H.
	Electrical Engineering Core	41
	Other Engineering	11
	Computer Engineering/Science	19
	Math	18
	Science	15
	Writing and Speech	9
	General Education Courses	18
Total Semester Hours		131

### Biomedical TRACK

The biomedical option:

COURSE	TITLE	S.H.
	Electrical Engineering Core	41
	Other Engineering	11
	Math	18
	Science including Biology and Organic Chemistry	32
	Writing and Speech	9
	General Education Courses	18
Total Semester Hours		129

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

**Farzad Ahmadi**, M.S., Assistant Professor

**Michael Ekoniak**, Ph.D., 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

#### Lecturer

**Edward Burden**, M.S., Lecturer

## Major

- Electrical Engineering (p. 527)

## Major Tracks

- Electrical Engineering, Traditional Track (p. 527)
- Electrical Engineering, Computer/Digital Track (p. 526)
- Electrical Engineering, Biomedical Track (p. 524)

## Minor

- Minor in Electrical and Computer Engineering (p. 529)
- Minor in Mathematics (p. 567)

### 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 Fundamental of Antenna Design and Application 3 s.h.**

Examination of dipole, loop aperture, and microstrip antennas; array theory; radiation resistance, directivity, equivalent circuits, input impedance, and basic transceiver architecture. Investigation of practical applications of antennas and arrays in communications systems, radar systems and airborne navigation systems.

**Prereq.:** ECEN 3742 grade of "C" or better 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 Biomedical Track

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
Total Semester Hours		129

<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		9
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Arts and Humanities		6
Social Science		6
Social and Personal Awareness		6
<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>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>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
Total Semester Hours		129

## Courses Common to All Tracks

COURSE	TITLE	S.H.
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	3
PHIL 2626	Engineering Ethics	3
Arts and Humanities Elective		3
Social Science Elective		3
Social & Personal Awareness Elective		3
Total Hours		18
<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
Semester Hours		17

<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
Semester Hours		17

### Year 2

<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
Semester Hours		16

### Spring

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
Semester Hours		16

### Year 3

<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
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
ISEN 3710	Engineering Statistics	3
Semester Hours		17

### 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
Semester Hours		17

### Year 4

<b>Fall</b>		
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
Semester Hours		15
<b>Spring</b>		
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
Semester Hours		14
Total Semester Hours		129

## Student Outcomes

The following (1 through 7) Student Outcomes support the program educational objectives. Attainment of these outcomes by students by the time of their graduation prepares graduating students to enter the professional practice of engineering.

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## 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
	Total Semester Hours	131

<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

### Major Requirements

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

### Computer Engineering/Science

CSIS 2610	Programming and Problem-Solving	4
CSIS 3700	Data Structures and Objects	4
ECEN 3734	Computer Design	3

### CSCI/ECEN Electives

Select 8 s.h. of approved CSCI/ECEN electives.	8
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### Science

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	

### Math

Select 18 s.h. of MATH courses.	18
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Total Semester Hours	132
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## 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

### Writing & Speech

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>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
Semester Hours		14
<b>Spring</b>		
MATH 1572	Calculus 2	4
ENGR 1560	Engineering Computing	2
ENGR 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Semester Hours		16
<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
Semester Hours		16
<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
Semester Hours		16
<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
Semester Hours		17
<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
Semester Hours		17
<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
Semester Hours		18
<b>Spring</b>		
ECEN 4899	Senior Design Project	4
CSCI/ECEN Elective		4
Science Elective		3
General Education Requirement		3
General Education Requirement		3
Semester Hours		17
Total Semester Hours		131

## Student Outcomes

The following (1 through 7) Student Outcomes support the program educational objectives. Attainment of these outcomes by students by the time of their graduation prepares graduating students to enter the professional practice of engineering.

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## Bachelor of Engineering in Electrical Engineering, Traditional Track

### Summary for Traditional Track

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>		
<b>Core Competencies</b> 9		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
<b>Arts and Humanities</b> 6		
<b>Social Science</b> 6		
<b>Social and Personal Awareness</b> 6		
<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>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>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> 124		

COURSE	TITLE	S.H.
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	3
PHIL 2626	Engineering Ethics	3
Arts and Humanities Elective 3		
Social Science Elective 3		
Social & Personal Awareness Elective 3		
<b>Total Hours</b>		<b>18</b>

<b>Year 1</b>		
<b>Fall</b>		<b>S.H.</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>



**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
ISEN 3710	Engineering Statistics	3
PHIL 2626	Engineering Ethics	3
Semester Hours		16

**Spring**

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
Semester Hours		16

**Year 4****Fall**

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
Semester Hours		17

**Spring**

ECEN 4899	Senior Design Project	4
ECEN Elective		3
Science Elective		3
General Education Requirement		3
Semester Hours		13
Total Semester Hours		124

## Student Outcomes

The following (1 through 7) Student Outcomes support the program educational objectives. Attainment of these outcomes by students by the time of their graduation prepares graduating students to enter the professional practice of engineering.

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## 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
Total Semester Hours		19

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
Total Semester Hours		19

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
Total Semester Hours		20

## 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 having enough technical knowledge to support scientists and engineers and therefore can obtain an internship or full-time employment. 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 (CCET), electrical engineering technology (EET), and mechanical engineering technology (MET) 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: a) continue their education in pursuit of a bachelor degree which is 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); b) pursue professional employment; or c) enter industry and continue their education in pursuit of a bachelor degree.

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 the engineering 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 or gas 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.

## 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:

- Secure employment and achieve recognition in a technical career related to their civil and construction engineering technology degree

- Continue to gain professional knowledge through lifelong learning and communicate effectively in a professional environment
- Advance in pursuit of the BSAS degree

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 CCET bachelor degree at YSU, graduates will have demonstrated the ability to:

- Secure employment and achieve recognition in a technical career related to their civil and construction engineering technology degree.
- Continue to gain professional knowledge through lifelong learning and communicate effectively in a professional environment

## 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, contracts, 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 are prepared to:

- Secure employment and achieve recognition in a technical career related to their Electrical Engineering Technology degree.
- Continue to gain professional knowledge through lifelong learning and communicate effectively in a professional environment
- Advance in pursuit of the BSAS degree

Bachelor's degree graduates are prepared to assist with planning, design, inspection, and direction of the electrical engineering projects involving electrical systems, industrial automation, smart grid and power distribution, and computer networking systems.

During their first few years after earning the EET bachelor degree at YSU, graduates will have demonstrated the ability to:

- Secure employment and achieve recognition in a technical career related to their civil and construction engineering technology degree.
- Continue to gain professional knowledge through lifelong learning and communicate effectively in a professional environment

## 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 to engage in lifelong learning
- ability to understand professional, ethical, social, and diversity responsibilities and diversity
- 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 be creative in design
- ability to work effectively in teams
- ability to identify, analyze, and solve technical problems
- ability to communicate effectively
- recognition of the need to engage in lifelong learning
- ability to understand professional, ethical, and social responsibilities
- respect for diversity, professional, societal, and global issues
- commitment to quality, timeliness, and continuous improvement

## Chair

**Carol M. Lamb**, D.B.A., Professor, Chair

## 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

#### Lecturer

Daniel P. Coyne, B.A., Senior Lecturer

## Majors

- Power Plant (Electrical Utilities) Technology Associate of Technical Studies (p. 542)
- Civil and Construction Engineering Technology Associate Degree Program (p. 539)
- Civil and Construction Engineering Technology Bachelor's Degree Program (p. 543)
- Electrical Engineering Technology Associate Degree Program (p. 540)
- Electrical Engineering Technology Bachelor's Degree Program (p. 545)
- Mechanical Engineering Technology Associate Degree Program (p. 541)
- Mechanical Engineering Technology Bachelor's Degree Program (p. 547)

## Minors

- Minor in Electrical Engineering Technology (p. 549)

## 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 (NESC). 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.**

Interdisciplinary capstone course. Analysis and design of control systems for industrial processes, utility automation, and electromechanical systems. Includes preparation of schematic, control, and wiring diagrams; specifications, estimates, project schedule, and presentation of results. Three hours lecture, three hours lab per week.

**Prereq.:** Senior standing in EET and permission of EET program coordinator.

**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.**

Linear static problems are solved using commercial finite element analysis (FEA) software, where the results are verified using theoretical calculations. Topics include trusses, frames, plane stress/strain, and 3-D structures. Three hours lecture.  
**Prereq.:** "C" or better in MET 3707 or 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.

### 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, 2017

Accredited through: 2024

Next campus visit: 2023

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 or PHIL 2626	Introduction to Professional Ethics Engineering Ethics	3
PHYS 1501	Fundamentals of Physics 1	4
<b>Total General Education Credit Hours: 28 s.h.</b>		
<b>Courses in Major:</b>		
ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
CCET 1503	CAD Technology	2
CCET 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
<b>Total Major Credit Hours: 43 s.h.</b>		
Total Semester Hours		72

Year 1		S.H.
<b>Fall</b>		
ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
CCET 1503	CAD Technology	2
CCET 1504	Drafting and Plan Reading	2
MATH 1513	Algebra and Transcendental Function	5
ENGL 1550	Writing 1	3
Semester Hours		18
<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		3
Semester Hours		18
<b>Year 2</b>		
<b>Fall</b>		
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
Semester Hours		19
<b>Spring</b>		
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
Semester Hours		17
Total Semester Hours		72

## Program outcomes

### ASSOCIATE OF APPLIED SCIENCE in civil and construction engineering technology

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, 2017

Accredited through: 2024

Next campus visit: 2023

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
CCET 1503	CAD Technology	2
CCET 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.****Year 1**

<b>Fall</b>		<b>S.H.</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	CAD Technology	2
CCET 1504	Drafting and Plan Reading	2
Semester Hours		19

**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**

<b>Fall</b>		
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

**PROGRAM OUTCOMES****ASSOCIATE OF APPLIED SCIENCE IN Electrical engineering technology**

Graduates of the Associate Degree in Electrical Engineering Technology 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, 2017

Accredited through: 2024

Next campus visit: 2023

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>		
<b>Courses in Major:</b>		
ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
CCET 1503	CAD Technology	2
CCET 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
MET 2606	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
<b>Total Major Credit Hours: 38 s.h.</b>		
<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
Semester Hours		18

### Spring

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
Semester Hours		16

### Year 2

#### Fall

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
Semester Hours		15

#### Spring

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
Semester Hours		18
Total Semester Hours		67

- <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

### ASSOCIATE OF APPLIED SCIENCE IN mechanical engineering TECHNOLOGY

Graduates of the Associate Degree in Mechanical Engineering Technology 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 to engage in lifelong learning
- ability to understand professional, ethical, social, and diversity responsibilities and diversity
- 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.

Year 1		
<b>Fall</b>		
ENGL 1550	Writing 1	S.H. 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
Semester Hours		17
<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
Semester Hours		17
<b>Summer</b>		
EUT 2699	Electric Utility Co-op (Optional)	2
Semester Hours		2
<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
Semester Hours		17
<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
Semester Hours		15
Total Semester Hours		68

<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.

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, 2017

Accredited through: 2024

Next campus visit: 2023

Link to accrediting body: ABET (<http://www.abet.org>)

COURSE	TITLE	S.H.
<b>General Education Courses:</b>		
MATH 2670	Applied Calculus 2	5
GER SPA		3
CHEM 1515	General Chemistry 1	4
CHEM 1515L	General Chemistry 1 Laboratory	0
GER SPA		3
GER Social Studies		3
GER Arts & Humanities		3
<b>Total GER Credit Hours: 20 s.h.</b>		
<b>Courses in the Major:</b>		
<b>Design Elective (3 courses required):</b>		
CCET 4812	Concrete Design	9
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
<b>CCET Elective (2 courses required):</b>		
CCET 4807	Project Planning & Scheduling	6
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
<b>Technical Elective (1 courses required):</b>		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
<b>Total Major Credits: 43 s.h.</b>		

### Year 1

Fall		S.H.
ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
CCET 1503	CAD Technology	2
CCET 1504	Drafting and Plan Reading	2
MATH 1513	Algebra and Transcendental Function	5
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
PHYS 1501	Fundamentals of Physics 1	4
ENGL 1551	Writing 2	3
Social Science GER <sup>1</sup>		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
PHIL 2626	Engineering Ethics (Arts & Humanities GER)	3
CCET 2607	Civil 3D	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
Semester Hours		17

### Year 3

Fall		
Design Elective		
CCET 3705	Computing for Technologists	3
MATH 2670	Applied Calculus 2	5
CHEM 1515	General Chemistry 1	4
CHEM 1515L	General Chemistry 1 Laboratory	0
EET 3725 & 3725L	Electromechanical Systems and Electromechanical Systems Lab	4
Semester Hours		19

### Spring

Design Elective		3
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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
Semester Hours		15
<b>Year 4</b>		
<b>Fall</b>		
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
Semester Hours		15
<b>Spring</b>		
CCET 4884	Civil/Structural Facilities Design <sup>2</sup>	3
EET 4810	Electrical System Design	3
Social & Personal Awareness GER <sup>1</sup>		3
Social Science GER <sup>1</sup>		3
Arts & Humanities GER <sup>1</sup>		3
Semester Hours		15
Total Semester Hours		136

<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>	
Total Semester Hours		16-18

<sup>4</sup> Approval of the CCET Program Coordinator is required **before** taking the course.

## PROGRAM OUTCOMES

### BACHELOR OF SCIENCE IN APPLIED SCIENCE IN CIVIL AND CONSTRUCTION ENGINEERING TECHNOLOGY

Graduates of the Bachelor's 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, 2017

Accredited through: 2024

Next campus visit: 2023

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>		

### Year 1

Fall	S.H.	
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
Semester Hours		19

### Spring

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
Semester Hours		14

### Year 2

#### Fall

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
Semester Hours		17

#### Spring

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
Semester Hours		18

### Year 3

#### Fall

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
Semester Hours		17
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		13
Total Semester Hours		129

<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

**program outcomes**

**BACHELOR OF SCIENCE IN APPLIED SCIENCE in Electrical engineering technology**

Graduates of the Bachelor's Degree in Electrical Engineering Technology 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, with a path to the BSAS degree.
- 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, 2017

Accredited through: 2024

Next campus visit: 2023

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	
ENT 3700	Entrepreneurship New Venture Creation	
MET 4870	Applied Finite Element Method	3
MET 4820	Machine Systems	3
<b>Total Major Credit Hours: 42 s.h.</b>		
<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
Semester Hours		18
<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
Semester Hours		16

**Year 2****Fall**

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
Semester Hours		15
<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
Semester Hours		18

**Year 3****Fall**

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
Semester Hours		15
<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
Semester Hours		16

**Year 4****Fall**

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
Semester Hours		16
<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
Semester Hours		15
Total Semester Hours		129

<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)

EET 3745 & 3745L	Microprocessor Systems 2 and Microprocessor Systems 2 Lab	3
Total Semester Hours		21

## 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	
Total Semester Hours		5-11

## PROGRAM OUTCOMES

### BACHELOR OF SCIENCE IN APPLIED SCIENCE IN MECHANICAL ENGINEERING TECHNOLOGY

Graduates of the Bachelor's Degree in Mechanical Engineering Technology 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 be creative in design
- ability to work effectively in teams
- ability to identify, analyze, and solve technical problems
- ability to communicate effectively
- recognition of the need to engage in lifelong learning
- ability to understand professional, ethical, and social responsibilities
- respect for diversity, professional, societal, and global issues
- 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

## 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 thirteen 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.

Rebecca Baxter, M.S.

Susie L. Beiersdorfer, M.S.

Breanna Beaver, M.S.

Anna C. Woodard (Draa), M.S.

Heidi L. Haug, M.S.

Jessie Holland, M.S.

Thomas E. Jordan, Ph.D.

Tamara M. Kerr-Sahli, M.S.

Daniel J. Kuzma, M.S.

Jason Lee, M.S.

Patrick Pruent, M.S.

Debbie A. M. Smith, M.S.

## Majors

- BS in Environmental Studies (p. 553)
- BA in Geology (p. 554)
- BS in Geology (p. 557)

## Minors

- Minor in Engineering Geology (p. 558)
- Minor in Environmental Geology (p. 558)
- Minor in Environmental Studies (p. 559)
- Geoscience Minor (p. 559)
- Natural Gas and Water (p. 559)

## 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. Taken with ENST 3700L.

**Prereq.:** ENST 2600 and CHEM 1515.

**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. Taken with ENST 3700.

**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	
Mathematics Requirement		
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	Calculus 1 <sup>2</sup>	4
or MATH 1570	Applied Calculus 1	
<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	Statistical Methods (recommended for upper-division credit)	
	or STAT 2601 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.

### Year 1

		S.H.
<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
Semester Hours		14

### Spring

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
Semester Hours		16

### Year 2

<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
Semester Hours		14

### Spring

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
Semester Hours		16

### Year 3

<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
Semester Hours		16

### Spring

ENST 5800	Environmental Impact Assessment (R)	3
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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
Semester Hours		16

### Year 4

#### Fall

ENST 5830	Risk Assessment (R)	3
ENST 3790	Internship/Cooperative (R)	4
Minor Course		3
Minor Course		3
Upper Division Course > 3700		3
Semester Hours		16

#### Spring

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
Semester Hours		12-14
Total Semester Hours		120-122

<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

The Bachelor of Arts in Geology prepares students for entry-level employment within the wide-ranging fields of geology. The dominant fields of geological employment include:

- Environmental geology
- Construction
- Petroleum geology
- Water resources
- Mining
- Hydrogeology
- Government regulations and compliance
- Pipeline construction

The Bachelor of Arts in Geology degree program can be completed in eight semesters if students average sixteen hours of coursework per semester.

For more information, visit the Department of Geological and Environmental Sciences (<https://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
<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	1
GEOL 5802	Sedimentology and Stratigraphy (Capstone course)	3
MATH 1570	Applied Calculus 1	4
<b>Electives</b>		
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.

#### Year 1

Fall		S.H.
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
Semester Hours		15

#### Spring

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
Semester Hours		14

#### Year 2

##### Fall

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
Semester Hours		16

##### Spring

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
Semester Hours	16

**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
Semester Hours	17

**Spring**

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
Semester Hours	14

**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

**Spring**

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.

**Year 1**

<b>Fall</b>		<b>S.H.</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
Semester Hours		15

**Spring**

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
Semester Hours		14

**Year 2****Fall**

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
Semester Hours		16

**Spring**

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
Semester Hours		16

**Year 3****Fall**

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
Semester Hours		17

**Spring**

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
Semester Hours		14

**Year 4****Fall**

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

**Spring**

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.

## Bachelor of Science in Geology

**Geology** exists as a science to satisfy the needs of modern society for earth's abundant natural resources and to ensure sustainable practices for future generations. The Department of Geological and Environmental Sciences offers two different geology degrees; the **Bachelor of Arts** and the **Bachelor of Science**. Both programs prepare graduates for employment, however the Bachelor of Science is considered the flagship degree as its more rigorous curriculum provides significant employment advantages and prepares graduates for admission to Master of Science and Doctor of Philosophy (PhD) programs. The dominant fields of employment include:

- Engineering geology
- Water resources
- Construction
- Hydrogeology
- Petroleum geology
- Environmental geology
- Geophysics
- Mining
- Government regulation and compliance work
- Employment related to the energy industry

The Bachelor of Arts and the Bachelor of Science 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 (<https://catalog.yсу.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/department-geological-environmental-sciences>)

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	1

(may be repeated up to four times)

GEOL 5802	Sedimentology and Stratigraphy	3
GEOG 5810	Geographic Information Science 1	3

### Capstone Experience

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	

### Electives

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 & enst 3751L	Water Quality Analysis and	
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	

### Ancillary Science Courses

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	Calculus 1 and Calculus 2	
or STAT 3717 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.

**Year 1**

<b>Fall</b>		<b>S.H.</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
Semester Hours		15

**Spring**

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
Semester Hours		17

**Year 2**

<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
Semester Hours		16

**Spring**

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
Semester Hours		14

**Year 3**

<b>Fall</b>		
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
Semester Hours		15

**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
Semester Hours		14

**Year 4**

<b>Fall</b>		
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
Semester Hours		13

**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
Semester Hours		15
Total Semester Hours		119

<b>COURSE</b>	<b>TITLE</b>	<b>S.H.</b>
<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

<b>COURSE</b>	<b>TITLE</b>	<b>S.H.</b>
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
Total Semester Hours		20

## Minor in Environmental Geology

<b>COURSE</b>	<b>TITLE</b>	<b>S.H.</b>
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	
Total Semester Hours		20

## 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
Total Semester Hours		19

## 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
Total Semester Hours		18

## 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
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 plans for 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, 3745, 3760, MATH 4855, MATH 5825, MATH 5835, MATH 5845, MATH 5861, or 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 4804, 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

**Thomas P. Wakefield**, Ph.D., Professor, Chair

#### Professor

**Alexis Byers**, Ph.D., Assistant 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

**Eric J. Wingler**, Ph.D., Professor

**George Yates**, Ph.D., Professor

#### Lecturer

**Lori A. Carlson**, M.S., Senior Lecturer

**Emily Dolsak**, M.S., Lecturer

**Sepideh Khavari**, M.S., Lecturer

**Alayne Leone**, M.S., Lecturer

## Majors

- BS in Mathematics (p. 566)

#### Minors

- Mathematics Minor (p. 567)
- Statistics Minor (p. 567)

- Biomathematics Minor (p. 567)
- Actuarial Science Minor (p. 567)

## Mathematics

### **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 or Math Placement Level 20 and concurrent enrollment in MATH 1510C.

**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 with grade of "C" or better or Math Placement Level 35 or Math Placement Test Level 20 and concurrent enrollment in MATH 1511C.

**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 with grade of "C" or better 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 grade of "C" or better, 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 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.:** C or better in 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 OR MATH 1581H grade of "C" or better.

**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.**

Limits, derivatives, integrals; emphasizes theory, proofs, nonlinear epsilonics, medical/health applications. Rigorously develops logarithmic/exponential functions. Major projects applying differential equations to medicine. Credit can be given for both MATH 1571 and MATH 1581H if taken in that order; MATH 1581H can be prerequisite for MATH 1572.

**Prereq.:** Admission to YSU-BaccMed 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.

**Prereq.:** at least Level 20 on the Mathematics Placement Test or Level 10 on Mathematics Placement Test and concurrent enrollment in MATH 2623C.

**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.:** at least Level 20 on the Mathematics Placement Test or Level 10 on the Mathematics Placement Test and concurrent enrollment in MATH 2651C.

**MATH 2651C Corequisite Support for Mathematics for Early Childhood Teachers 3 s.h.**

This course is intended to provide corequisite support for students requiring remediation in mathematics while they are concurrently enrolled in MATH 2651. Emphasis will be placed on prerequisite skills needed for Algebra, Number and Operations, and Quantity topics as well as just in time review through the use of appropriate technology. Does not count toward a degree.

**Prereq.:** Concurrent enrollment in MATH 2651.

**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 grade of "C" or better.

**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 with a "C" or better.

**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 with a "C" or better.

**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 MATH 1585H 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 MATH 1585H 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.:** C or better in 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 grade of "C" or better.

**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 or MATH 1585H.

**MATH 3720 Linear Algebra and Matrix Theory 3 s.h.**

Matrices; matrix operations; linear transformations; applications.

**Prereq.:** MATH 1572 or MATH 1585H.

**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 MATH 2686H or permission of the instructor.

**MATH 3745H Honors 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 MATH 2686H 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 3715 and one of MATH 2673 or MATH 2686H.

**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 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 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 3 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 STAT 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 or MATH 2686H and 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 or MATH 2686H 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.

## 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. Credit will not be given for both STAT 2601 and STAT 2625.

**Prereq.:** level 35 or higher on the Math Placement Test.

**Gen Ed:** Mathematics.

**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.:** at least Level 20 on the Mathematics Placement Test or Level 10 on the Mathematics Placement Test and concurrent enrollment in STAT 2625C.

**STAT 2625C Corequisite Support for Statistical Literacy and Critical 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 1552 or MATH 1570 or MATH 1571 or MATH 1585H or equivalent.

**STAT 3717H Honors 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 one of MATH 2673 or MATH 2686H 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.:** STAT 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.

**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.:** 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.:** STAT 4843 or consent of the instructor.

**STAT 5811 SAS Programming for Data Analytics 3 s.h.**

An introduction to SAS programming for data 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. Also listed as ECON 5861.

**Prereq.:** STAT 3717 or STAT 3743 or STAT 2601 or ECON 3790 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.

**Year 1**

Fall		S.H.
MATH 1571	Calculus 1	4
ENGL 1550	Writing 1	3
GER domain (AH)		3
GER domain (SS)		3
Foreign Language 1550		4
Semester Hours		17

**Spring**

MATH 1572	Calculus 2 (Prerequisite)	4
CSIS 2610	Programming and Problem-Solving	4
ENGL 1551	Writing 2	3
Foreign Language 2600		4
Semester Hours		15

**Year 2**

Fall		S.H.
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
Semester Hours		17

**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
Semester Hours		16

**Year 3**

Fall		S.H.
MATH 3721	Abstract Algebra 1 (Prerequisite)	4
Minor Course		3
GER domain (SP)		3

GER domain (NS)		3
Semester Hours		13
<b>Spring</b>		
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
Semester Hours		16
<b>Year 4</b>		
<b>Fall</b>		
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
Semester Hours		14
<b>Spring</b>		
MATH elective (4800 level or higher)		3
MATH elective (4800 level or higher)		3
Minor Course (Upper division)		3
Elective (Upper Division)		3
Semester Hours		12
Total Semester Hours		120

## 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
Total Semester Hours		22

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:		
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	
BIOL 3711 or BIOL 3780/3780L	Cell Biology: Fine Structure General Ecology	3-5
Select at least 3 s.h. of upper-division biology courses.		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
STAT 3717 or STAT 3743	Statistical Methods Probability and Statistics	4
Select one of the following:		
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
Total Semester Hours		27-31

## 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>		18
<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>		18

## Minor in Statistics

COURSE	TITLE	S.H.
Select one of the following courses:		
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:		
STAT 3717 or STAT 3743	Statistical Methods Probability and Statistics	7
STAT 4817	Applied Statistics	



Select an additional 9 s.h. of upper division STAT courses, excluding STAT 3717, 3743, and 4817	9
Total Semester Hours	20-21

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, Industrial and Manufacturing Engineering

(330) 941-3016

Moser Hall, Room 2510

The Department of Mechanical, Industrial and Manufacturing 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.

### Chair

**Hazel Marie**, Ph.D., 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

**Gregory Dillon**, Ph.D., Professor

**Kevin Disotell**, Ph.D., Assistant Professor

**Hojjat Mehri**, Ph.D., Professor

**Stefan Moldovan**, Ph.D., Assistant Professor

**Nazanin Naderi**, 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

### Lecturer

**Anthony Viviano**, M.S., Lecturer

## Majors

- Industrial and Systems Engineering Program (p. 571)
- Mechanical Engineering Program (p. 574)
- Manufacturing Engineering Program (p. 577)

## Minors

- Minor in Industrial and Systems Engineering (p. 577)
- Minor in Mechanical Engineering (p. 577)

## 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 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

Welcome to the Youngstown State University (YSU) Industrial & Systems Engineering program webpage. We offer a Bachelor of Engineering (BE) degree in Industrial & Systems Engineering. This program offers a strong background in mathematics, the sciences, management principles, and principles of engineering analysis and design. Also, in addition to receiving a quality education in this program, many students participate in co-op or internship job assignments during their time with us, making them highly marketable upon completion of their degrees. Graduates of the program enjoy placement in many areas of the diverse industrial engineering job market.

*I hope that you find this webpage informative. If you have any additional questions, please contact me.*

*Martin Cala, Ph.D., P.E.*

Professor and Program Coordinator

Department of Mechanical, Industrial and Manufacturing Engineering

Phone: (330) 941-1746

E-mail: mcala@ysu.edu

**(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.yzu.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.

## Accreditation

The baccalaureate degree Industrial Engineering program is accredited by the Engineering Accreditation Commission of the Accreditation Board of Engineering and Technology (ABET). This process guarantees a quality program of high standards and excellence, evaluated by experts in industry, academia and government. The program was last reviewed with a site visit on campus in 2013, resulting in the maximum 6 year approved accreditation. The

next on-campus site review date is scheduled for 2019. This link below offers more information on this accreditation board.

<http://www.abet.org/>

### 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
<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
Semester Hours		14
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
PHYS 2610	General Physics 1	4
ENGR 1560	Engineering Computing	2
Semester Hours		13
<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
Semester Hours		17
<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
Semester Hours		16
<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
Semester Hours		15

<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
Total Semester Hours		120

## 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	Linear Algebra and Matrix Theory	3
	or MATH 3705 Differential Equations	
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

*Welcome to the Youngstown State University (YSU) Mechanical Engineering program webpage. We offer Bachelor of Engineering (BE) and Master of Science in Engineering (MSE) degrees in Mechanical Engineering. The undergraduate program provides a strong background in mathematics, the sciences, and fundamentals of engineering, as well as tracks in the design and analysis of solid mechanics systems, thermal fluid flow systems, and dynamic systems. In addition to a quality education, most students participate in co-op or internship job assignments during their time with us, making them more marketable upon completion of their degrees. Graduates of the program enjoy placement in many areas of the diverse mechanical engineering job market.*

*I hope that you find this web page informative. If you have any additional questions, please contact me.*

Hazel Marie, Ph.D., P.E.

Professor and Chair

Department of Mechanical, Industrial and Manufacturing Engineering

Phone: (330) 941-3015

E-mail: hmarie@ysu.edu

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. adaption 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.yсу.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.

## Accreditation

*The baccalaureate degree Mechanical Engineering program is accredited by the Engineering Accreditation Commission of the Accreditation Board of Engineering and Technology (ABET). This process guarantees a quality program of high standards and excellence, evaluated by experts in industry, academia and government. The program was last reviewed with a site visit on campus in 2013, resulting in the maximum 6 year approved accreditation. The next on campus review date is scheduled for 2019. This link offers more information on this accreditation board.*

<http://www.abet.org/>.

## Industrial Advisory Board

The Industrial Advisory Board is another valuable resource in ensuring a quality program. It is composed of members of various local industries, having a vital interest and purpose in the school and/or department. The industry advisory board members can also serve as mentors on an industry sponsored project, as well as to advise the department in the area of curriculum development and research. Our board members include:

David Drabison – Board Chair  
Design Engineer  
Babcock & Wilcox Company, Nuclear Operations Group

John Divitto  
Business Development Manager  
Babcock & Wilcox Company, Power Generation Group

Tony Ghioldi  
Vice President Sales  
Quality Bridge & Fab, Inc.

Don Helle  
Director – Global Process Engineering  
The Goodyear Tire & Rubber Company

Patrick Kiraly  
Tooling Specialist  
V&M Star

Mike Malito  
Babcock & Wilcox Company (Retired)

Anthony J Nackino  
Engineering Manager

Advanced Recycling Systems, Inc.

Gorman Ng  
Regional Manager  
O.E.M. and Government  
Linde Hydraulics Corporation

David Peterson  
Babcock & Wilcox Company (Retired)

Courtney A. Puhl  
Delphi Corporation

Richard Ulam  
Business Development Manager  
ABB Power Systems Power Generation

Douglas Verenski  
President and Chief Engineer  
Hunter Lift

COURSE	TITLE	S.H.
<b>Mechanical Engineering Program</b>		
<b>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

**Year 1**

<b>Fall</b>		<b>S.H.</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
Semester Hours		17

**Spring**

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
Semester Hours		16

**Year 2**

<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
Semester Hours		16

**Spring**

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
Semester Hours		16

**Year 3**

<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
Semester Hours		16

**Spring**

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
Semester Hours		15

**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
Semester Hours		16

**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
Semester Hours		17
Total Semester Hours		129

## 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
Total Semester Hours		18

## 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
Total Semester Hours		18

## 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
Semester Hours		17

**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
Semester Hours		16

**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
Semester Hours		18

**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
Semester Hours		15

**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
Semester Hours		16

**Spring**

ISEN 3720	Statistical Quality Control	3
GER Elective (SPA)		2
GER Elective (SS)		3
GER Elective (SS)		3
Semester Hours		11

**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
Semester Hours		16

**Spring**

GER Elective (AH)		3
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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)		
Semester Hours		15
Total Semester Hours		124

## 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](mailto: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 [wgsturuss@ysu.edu](mailto:wgsturuss@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 Sturuss**, 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., Professor

**Tom Nelson Oder**, Ph.D., Professor

**Donald Priour**, Ph.D., Assistant Professor

## Majors

- BS in Physics with a Minor in Mathematics (p. 582)
- BA in Physics with a Minor in Mathematics (p. 582)

- BS with a Combined Major in Physics and Astronomy and a Minor in Mathematics (p. 583)

## Minors

- Physics Minor (p. 584)
- Astronomy Minor (p. 584)

## 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 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
Total Semester Hours		120

## 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		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
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		3-4
CIS 3735	UNIX Environment	
CSIS 2610	Programming and Problem-Solving	
Electives:		
If CIS 3735 is selected, 8 hours of upper division electives and 9 hours of 17-16 any level electives; OR if CSIS 2610 is selected, 11 hours of upper division electives and 5 hours of any level electives needed		
Total Semester Hours		120

<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
Semester Hours		16

<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		3
MATH 1572	Calculus 2 (P)	4
Semester Hours		16

<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
Semester Hours		16-15

<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		3
Arts & Humanities GER Domain		3
CMST 1545	Communication Foundations	3
Semester Hours		16

<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		3
Arts & Humanities GER Domain		3
Semester Hours		16

<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
Semester Hours	12

<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
Semester Hours		14

<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
Semester Hours		14-15
Total Semester Hours		120

## 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
Total Semester Hours		120

## 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
Prerequisite courses PHYS 3703 and PHYS 3704 are required for ASTR 4815		
ASTR 4815	Undergraduate Astronomy Research	3
Total Semester Hours		18

## 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
Total Semester Hours		18

<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 (<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. 617)
- 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. 618)
- Sales (p. 612)

## wcba certificate program

- Enterprise Resource Planning (ERP) (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-management/erp-certificate>)
- Entrepreneurship (p. 617)
- Leadership (<http://catalog.yсу.edu/undergraduate/colleges-programs/college-business-administration/department-management-leadership-certificate>)
- Nonprofit Leadership (p. 618)

## 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.yсу.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 1510C Corequisite Support for College 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 Courses

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 their 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 <small>not required for Accounting majors</small>	3
MGT 3789	Operations Management	3
MGT 4850	Strategic Management and Leadership <small>Graduating Seniors Only. Prerequisites: FIN 3720 (C), MKTG 3702 (C), MKTG 3703 (3), MGT 3725 (C) and a minimum 2.5 overall GPA.</small>	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., Professor

**Maria Paulina Kassawat**, Ph.D., Assistant Professor

**David B. Law**, Ph.D., Professor

**Karin A. Petruska**, Ph.D., Associate Professor

**Jeremy T. Schwartz**, Ph.D., Assistant Professor

**Raymond J. Shaffer**, D.B.A., Assistant Professor

**Xiaolou Yang**, Ph.D., Associate Professor

**Yiyang Zhang**, Ph.D., Assistant Professor

#### Lecturer

**Kerri Henderson**, M.B.A., Lecturer

**Michael Villano**, Ph.D., Lecturer

**Jessie Wright**, M.B.A., Lecturer

## Majors

- BSBA in Accounting (p. 591)
- BSBA in Finance, Financial Management Track (p. 594)
- BSBA in Finance, Certified Financial Planner Track (p. 592)

## Minors

- Accounting Minor (p. 595)
- Finance Minor (p. 596)

## 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 or 22 or higher ACT Math Score or 550 or higher SAT Math Score.

### 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 3 s.h.**

A continuation of ACCT 4817 with updated training in federal tax law and tax preparation software. Because of previous experience in ACCT 4817, students prepare more-complex tax returns (including small business and rental returns), provide guidance and leadership to first-year students, and assist with summary and e-filing of tax returns. A more in-depth summary/reflection paper is required. 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 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 grade of "C" or better and MATH Level 20 or higher or ACT Math Score of 18 or higher or SAT Math Score 480 or higher and 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 or FIN 3715 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 various WCBA student organizations (<http://www.yсу.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.yсу.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		
GE: Natural Science <small>One science course must include a lab</small>		
GE: Social & Personal Awareness		
<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 take 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>		
6		

Select 6 SH upper level Accounting courses not included in major. Students should consider at least ONE internship.

**BUSINESS UPPER LEVEL COURSES** 6

Select 6 SH courses from a business area (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG)

Total Semester Hours 120

### Year 1

#### Fall S.H.

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

Semester Hours 16

#### Spring

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

Semester Hours 15

### 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 Managerial Accounting 4

& 2603L and Managerial Accounting Spreadsheet Lab

ECON 3790 Statistics for Business and Economics 5

MKTG 3702 Business Professionalism 1

GE: Social & Personal Awareness 3

Semester Hours 13

### Year 3

#### Fall

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

Semester Hours 16

#### Spring

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

Semester Hours 14

### Year 4

#### Fall

ACCT 4801 Advanced Accounting 4

ACCT 4813 Federal Taxation 1 4

MGT 3789 Operations Management 3

BUS 3715 Principles of International Business 3

Semester Hours 14

### Spring

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

Semester Hours 16

Total Semester Hours 120

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>		
12		

Select 12 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG). Students should consider at least one internship for credit.

Total Semester Hours		122
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		16
<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
Semester Hours		13
<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
Semester Hours		15
<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
Semester Hours		17
<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
Semester Hours		14



**Spring**

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
Semester Hours		16
Total Semester Hours		122

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.yosu.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	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 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
<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>FINANCIAL MANAGEMENT REQUIRED COURSES</b>		
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
<b>FINANCE UPPER LEVEL COURSES</b>		
Select nine semester hours of upper level finance courses. Students should consider at least one internship.		
<b>BUSINESS UPPER LEVEL COURSES</b>		12

Select 12 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG)

Total Semester Hours 121

**Year 1**

**Fall** **S.H.**

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
Semester Hours		16

**Spring**

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
Semester Hours		15

**Year 2**

**Fall**

ACCT 2602	Financial Accounting	3
CMST 1545	Communication Foundations	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
PHIL 2628	Business Ethics	3
MKTG 3702	Business Professionalism	1
Semester Hours		13

**Year 3**

**Fall**

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
Semester Hours		15

**Spring**

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
Semester Hours		17

**Year 4**

**Fall**

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
Semester Hours	14

**Spring**

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
Semester Hours		15
Total Semester Hours		121

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
Total Semester Hours		18-20

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	
Total Semester Hours		18

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) 941-3080

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., Professor

**Ramesh Dangol**, Ph.D., Associate Professor

**Guohong (Helen) Han-Haas**, Ph.D., Associate Professor

**Deepa Gopal Iyer**, Ph.D., Assistant Professor

**Birsan Karpak**, D.B.A., Professor

**Anthony J. Kos**, Ph.D., Professor

**Betty Jo Licata**, Ph.D., Professor

**William G. Vendemia**, Ph.D., Professor

### Lecturer

**Hoda Atef Yekta**, M.S., Lecturer

**Kimberly Pleva**, M.B.A., Lecturer

**Frank G. Sole**, M.B.A., Senior Lecturer

## Majors

- Information and Supply Chain Management (p. 602)
- Business Administration (p. 598)
- Human Resource Management (p. 600)

## Minors

- Employee Relations Minor (p. 600)
- Management Information Systems Minor (p. 604)
- Management Minor (p. 604)

## Certificates

- Enterprise Resource Planning (ERP) Certificate (p. 600)
- Leadership Certificate (p. 604)

**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 and 2.50 overall gpa.

**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 and 2.5 overall gpa.

**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 and 2.5 overall gpa.

**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 3790 and 2.5 overall gpa.

**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 and 2.5 overall gpa.

**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 and 2.5 overall gpa.

**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 and 2.5 overall gpa.

**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 and 2.5 overall gpa.

**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 and 2.5 overall gpa.

**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 and 2.5 overall gpa.

**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 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.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 <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 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>BUSINESS ADMINISTRATION MAJOR REQUIREMENTS</b>		
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
<b>UPPER LEVEL BUSINESS SERIES</b>		
Select 6 SH from the same series (see below)		
<b>UPPER LEVEL BUSINESS COURSES</b>		12
Select 12 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG)		
<b>NON-BUSINESS COURSES</b>		
Select 9 SH of non-business coursework		
<b>Total Semester Hours</b>		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>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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		16
<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
Semester Hours		13
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
Total Semester Hours		120

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: Birsan 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
Total Semester Hours		12

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.ysu.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	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>		
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 <sup>spring term only</sup>	4
MGT 4819	Selection, Training, and Development <sup>fall term only</sup>	4
MGT 4844 & MGT 4845	Strategic Human Resource Management and Projects in Human Resource Management <sup>spring term only</sup>	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>		
Select 6 SH of upper level MGT courses.		
<b>BUSINESS UPPER LEVEL COURSES</b>		
Select 6 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG).		

NON-BUSINESS COURSES	6
Total Semester Hours	120

## BSBA in Human Resource Management Suggested Four-Year Plan

Year 1		S.H.
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		16
<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
Semester Hours		13
<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
Semester Hours		15
<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
Semester Hours		16
<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 Strategic Human Resource Management and Projects in Human Resource Management (MGT 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/ strategic 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 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.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 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 specialization list.		
<b>UPPER LEVEL BUSINESS COURSES</b>		
9		

Select 9 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG) and/or specialization courses.

NON-BUSINESS COURSES	2
Total Semester Hours	120

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>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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		16
<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
Semester Hours		13
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
<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
Semester Hours		15
Total Semester Hours		120

## 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:		
MGT 3771	Social Media and E-Commerce	3
MGT 3789	Operations Management	3
MGT 4820	Supply Chain Management	3

MGT 4821	Business Process Integration	3
MGT 4881	Project and Quality Management	3
MGT 5835	Systems Analysis and Design	3
MGT 5865	Database Management Systems	3
Total Semester Hours		18

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	3
MGT 3715	Employee Relations and Workplace Ethics	3
MGT 3755	Managing Workplace Diversity	3
MGT 3771	Social Media and E-Commerce	3
MGT 3789	Operations Management	3
MGT 4801	Leadership in Business and Society	3
MGT 4881	Project and Quality Management	3
MGT 5835	Systems Analysis and Design	3
MGT 5865	Database Management Systems	3
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.yсу.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., Associate Professor

**Emre Ulusoy**, Ph.D., Associate Professor

**Ying Wang**, Ph.D., Associate Professor

### Lecturer

**Joseph Angelo**, M.B.A., Lecturer

**Laura J. Dewberry**, M.B.A., Senior Lecturer

**Michael Pontikos**, M.B.A., Senior Lecturer

**John Rossi**, M.B.A., Lecturer

**Donna Walsh**, M.B.A., Senior Lecturer

## Majors

- Advertising and Public Relations (p. 607)
- Marketing: Management Track (p. 609)
- Marketing: Sales Management Track (p. 610)

## Minors

- Advertising and Public Relations Minor (p. 609)
- Marketing Minor (p. 609)
- Sales

## 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 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 menus 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 various WCBA student organizations (<http://www.yсу.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		
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	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 REQUIRED COURSES

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

#### ADVERTISING/PUBLIC RELATIONS REQUIRED COURSES

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

#### ADVERTISING/PUBLIC RELATIONS COURSES

Select 6 SH of upper level MKTG or ADV courses.

#### UPPER LEVEL BUSINESS COURSES

Select 6 SH of upper level busienns courses (ACCT, ADV, BUS, ENT, FIN, MKTG, MGT)

#### NON-BUSINESS ELECTIVE

Total Semester Hours 120

#### Year 1

<b>Fall</b>		<b>S.H.</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
Semester Hours		16

#### Spring

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
Semester Hours		15

#### Year 2

<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
Semester Hours		16

#### Spring

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
Semester Hours		13

#### Year 3

<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
Semester Hours		15

#### Spring

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
Semester Hours		15

#### Year 4

<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
Semester Hours		15

#### Spring

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
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.

#### 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	
Total Semester Hours		18

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		
Total Semester Hours		19

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	One science course must include a lab	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		
BUSINESS UPPER LEVEL COURSES		12
Select 12 SH of upper level business courses (ADV, ACCT, ADV, BUS, ENT, MGT, MKTG)		
NON-BUSINESS ELECTIVES		6
Total Semester Hours		120

120 Hours for Degree

#### Year 1

Fall		S.H.
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
Semester Hours		16

#### Spring

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
Semester Hours		15

#### Year 2

Fall		S.H.
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

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
Semester Hours		15

##### Spring

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
Semester Hours		15

#### Year 4

##### Fall

MGT 3789	Operations Management	3
MKTG 4825	Marketing Management	3
MKTG 3720	Industrial Marketing	3
Upper Level Business Course		3
Non-Business Elective		3
Semester Hours		15

##### Spring

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
Semester Hours		15

Total Semester Hours		120
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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 various WCBA student organizations (<http://www.yzu.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>

#### Year 1

Fall		S.H.
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>

#### Spring

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
<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		
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>

#### Spring

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
Semester Hours		15
<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
Semester Hours		15
<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
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 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.

## Sales Minor

Most professional business careers require strong sales skills—whether you're selling products and services to customers or ideas and expertise to clients. In many organizations the performance of the sales force is often the most critical to the overall success of the firm. The Sales Minor within the Department of Marketing in the Williamson College of Business Administration enables students to develop knowledge and skills in sales and sales management that will be useful and complement their major. The Sales minor can be met through successful completion of the following requirements:

COURSE	TITLE	S.H.
BUS 1500	Exploring Business	3
MKTG 3703	Marketing Concepts and Practice	3
MKTG 3740	Professional Selling	3
MKTG 3745	Sales and Account Management	3
MKTG 3747	Negotiations Concepts and Strategies	3
MKTG 3742	Organizational Purchasing	3
Total Semester Hours		18

Students interested in declaring a minor in Sales 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.

## 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.yсу.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 <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 <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
<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 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>ECONOMICS MAJOR REQUIREMENTS</b>		
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
<b>ECONOMICS UPPER LEVEL COURSES</b>		12
Select 12 SH of ECON upper level courses. 3 SH can including one of the following: ACCT 3711, MKTG 3709 or MKTG 3720.		
<b>BUSINESS UPPER LEVEL COURSES</b>		9
Select 9 SH of upper level business courses (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG)		
<b>NON-BUSINESS ELECTIVES</b>		9
Total Semester Hours		120
<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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		16
<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
Semester Hours		13
<b>Year 3</b>		
<b>Fall</b>		
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
<b>Spring</b>		
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
<b>Year 4</b>		
<b>Fall</b>		
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
<b>Spring</b>		
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.



**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.

## 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 <small>GE: Social &amp; Personal Awareness</small>	3
GE: Arts & Humanities		3
GE: Natural Sciences	<small>One science course must include a lab</small>	7
GE: Social and Personal Awareness		3

### 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 COURSES

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

### INTERNATIONAL BUSINESS CORE COURSES 15

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
Semester Hours		16
<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
Semester Hours		15
<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
Semester Hours		16
<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
Semester Hours		13
<b>Year 3</b>		
<b>Fall</b>		
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
Semester Hours		15
<b>Spring</b>		
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
Semester Hours		15
<b>Year 4</b>		
<b>Fall</b>		
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
Semester Hours		15
<b>Spring</b>		
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
Semester Hours	
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.

## WCBA Associate Degrees

### Majors

- Associate of Arts in Business Administration (p. 615)
- Associate of Technical Study - Business Technology (p. 616)

## 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.
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 Science <small>One Science must include a lab</small>		7
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 COURSES**

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

**Year 1****Fall**

		S.H.
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.
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 <sup>ENGL 1550, ENGL 1551 and all Business Tool courses</sup> 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**

Year 1		S.H.
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 in Entrepreneurship

Contact:

Joe Angelo

jfangelo@ysu.edu

The certificate in Entrepreneurship is 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 is 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
Total Semester Hours		12

Students interested in declaring a certificate 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 Entrepreneurship

Contact:

Joe Angelo

jfangelo@ysu.edu

The minor in Entrepreneurship is 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 minor is 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.

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
Select two of the following:		6
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	
Total Semester Hours		18

Students interested in declaring a 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.

## Certificate in Nonprofit Leadership Learning Outcomes

- 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.

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 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), Director, Center for Nonprofit Leadership**

## Minor in Nonprofit Leadership

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
Total Semester Hours		20

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.

## 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:		6
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

Total Semester Hours 21

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.

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 pursuing 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.



## 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.**

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